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The following interesting account of the epidemic of Monroe county, (Mississippi) was presented among the essays for the premium awarded last year by the Proprietor of this journal. As a history of that terrible disease, it will be found to be valuable. We must, however, observe that we have presented only such parts of the Essay as were immediately the result of observation.

ART. I. *An Essay on the Epidemic Fever of Monroe County, Mississippi, in the Summer and Autumn of 1822.* By
SAMUEL A. CARTWRIGHT, M.D.

THE country, the subject of the Epidemic, is exceedingly fertile, low, and marshy, lying immediately in the forks of the Tombigby and Buttahatcha rivers, and thickly settled with emigrants from the mountainous parts of North and South Carolina, Georgia, and from the northern states, most of whom had removed to it about a year before. In the spring, an unusual quantity of rain had raised the water-courses to a height before unknown, even by the Indians. The whole country was nearly inundated; the swamps, which are upwards of a mile in width, lying on each side of the rivers, were completely covered with water; as were also the smaller ones, which are interspersed on almost every farm.

An abundance of timber had been cut down by the new settlers, which had exposed many of those marshes to the sun, and, owing to the luxuriant growth of cotton the preceding year, enormous quantities of cotton seed were left, on almost every plantation, in a state of putrefaction. Several masses of these seeds, which had been inundated by the water of the river, were left remaining near the little town of Hamilton, in which the disease first began. The weather became very warm and sultry after the inundation, and continued so throughout the summer and part of the autumn. A disease, of which

many died, appeared among the cattle. In the last spring, and first summer month, there were so many mosquitoes, that the only rest the inhabitants could enjoy, was while sitting in the thick smoke of a cotton seed fire. In July the epidemic made its appearance.

It was generally ushered in by a chill, or rather a sense of cold and heat at the same time. The patient, on being attacked, though complaining of being cold, could not bear clothes to be thrown over him, as in the cold fit of an intermittent. Although he complained of cold, every part of his body was preternaturally hot to a by-stander. In less than an hour, he would complain of universal heat and tormenting thirst, violent headach and excruciating pains in his loins. The great anxiety and difficulty of breathing, deadly sickness, sense of weight, heaviness and pain in the stomach, increased as the fever approached its exacerbation; then the suffering was intolerable. The pulse in the cold stage was generally quick, and the artery much diminished. In the commencement of the hot stage, it became full, strong, and tense; but as the fever progressed, it was less full, more frequent, and often intermitting. The exacerbation of the disease was generally in the evening, and, in some cases, almost an intermission, or a considerable remission, would take place by the ensuing morning, and the patient flattered himself with a speedy recovery; but in the evening of the second day, generally, sometimes of the third, a sudden and unexpected paroxysm, more violent than the preceding one, came on, attended with a most horrid sensation of pain and oppression at the stomach, with deadly sickness and continued vomiting, attended with excessive efforts, though with the ejection of very little fluid of any kind. The second paroxysm raged, with violent headach and pains in the loins, with universal heat and red muddy-looking eyes, for several hours. At length, the heat of the skin abated to the healthy standard, or even below it, and, instead of a gentle diaphoresis, or copious sweat, with a pliant and soft state of the skin and pulse, clammy perspiration unequally diffused, with a numbness or deadly feel of the flesh, with a contracted and intermitting pulse, appeared. These two paroxysms were always attended with obstinate constipation of the bowels, and often with a total want of the secretion of urine. The organs of secretion could not perform their office. The cessation of urine, it appeared, by examinations after death, proceeded from inflammation in the cellular tissue that envelops the kidneys. The right kidney was more highly inflamed than the left, no doubt from its proximity to the duodenum, which was inflam-

ed when this symptom took place. The patient enjoyed a little respite from his sufferings until the third paroxysm, which generally appeared about noon of the third day. I did not see in any, who were violently attacked, this third paroxysm, or any succeeding one, accompanied with a hot skin. On the contrary, the skin felt rather cooler than natural, and was covered with a clammy perspiration; the extremities were often preternaturally hot; the pulse was often remarkably slow, beating from thirty to sixty in a minute. When the extremities continued hot, however, the pulse was sometimes preternaturally frequent, threaded, and intermitting. By placing the hand on the abdomen, there was felt a pulsation equal to that which the heart produces in the thorax, and synchronous with that organ in its pulsations. This abdominal pulsation was, no doubt, produced in consequence of the heart being overloaded with a mass of fluids too great to be moved readily on through the great blood-vessels. This labouring motion of the heart imparted to the diaphragm successive shocks, which that muscle communicated to those of the abdomen. Examinations, after death, of those who have died having this pulsation, led me to the above conclusion; for the heart was found, in these cases, filled with an unusual quantity of blood, and considerably enlarged. The tongue, which, during the first two paroxysms, did not appear much furred, now began to assume a much worse appearance, having a dark red line running from its extremity over its dorsum, which soon changed to a black colour. The skin then began to change to a yellow colour. One paroxysm succeeded another; the difficulty of breathing, the pain and irritability of the stomach increasing, or all pain whatever subsiding, until the fifth, the seventh, or the ninth day, when the patient died, as if suffocated; or, about the same period, frequent and enormous evacuations of a dark matter took place, and he speedily recovered. In all those who died, after a sudden subsidence of pain, the pia mater and the membranes investing the ganglionic nerves were found in a high state of inflammation. Extensive examinations, which convinced me of this fact, were made in the hospital at Natchez, during the prevalence of the yellow fever at that place. It is not at all uncommon for such patients to go about the room with no complaint, and apparently in the perfect possession of their mental faculties, with a wild look however, walk to their beds, lie down, and in a few minutes expire. These are called the walking corpse cases. They were not common in the epidemic of Monroe.

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demic, yet they varied from this course, in many instances. As it respects little occasional symptoms, these were so multiform, that "it is impossible to enumerate them." Sometimes, after one or two paroxysms, as heretofore described, a chill would come on, succeeded by no perceptible alteration of the pulse, and by not the least febrile heat in any external part; but, instead of fever, violent spasms and convulsions, especially of the muscles of the arms and legs. While these continued, the breathing was difficult, the eyes intolerant of light, and the mental faculties disordered.

A whole family of children, six in number, who lived rather out of the settlement, distant ten miles, in a more healthy situation, were attacked with these convulsions, which succeeded violent agues, and in place of the fever, which, until now, I had always seen succeed the cold fit. After the convulsive fit went off, which it usually did in three or four hours, the children were quite well until the next day, when the chill returned, and as it declined, a numbness in the limbs succeeded, accompanied with blindness. They would cry, and tell their parents that their arms or legs had fallen off, and very soon afterwards would be taken with violent convulsions. When they subsided, the blindness and numbness still remained for a time. When called to this family I found one of the children in the cold fit of an intermittent, which soon gave place to those convulsions; several had the convulsions on them, and one had just got rid of them, and complained only of the numbness. This last was walking the floor very briskly; on asking her father why she walked so much, he informed me that all the children did the same, as soon as they were relieved from the convulsions, even before they regained their sight, to prevent their feet and legs from going to sleep. It seemed as if these convulsions took the place of the hot fit, and the numbness corresponded with the perspiration. They were readily cured by a few active emetics and mercurial cathartics, and by an antimonial preparation to keep up a due action on the skin. These convulsions were far less dangerous than those which occurred in many who were attacked with the prevailing fever. Sometimes patients complained only of pain and spasms in the gastrocnemii muscles. This was always a bad symptom. I have frequently seen those spasms and pains in the yellow fever of Natchez. In a patient who died, having spasms of his inferior extremities, I found, upon inspection after death, that the fine tissue immediately investing the ischiatic, the obturator, and the anterior crural nerves, was highly inflamed. Drs. Guston and Denny,

of Natchez, who were present, remarked that these nerves were of a morbid yellow colour throughout their substance. One of these gentlemen was very particular in trying to free the nerves of this colour by ablution, but could not succeed. The fine tissue investing the cœliac ganglion and plexus, the superior and inferior mesenteric plexus, and the ganglia accessoria, was much more highly inflamed than the tissue investing the nerves of the lower extremities. The immediate cause of death, however, appeared to be a mortification of the duodenum.

This epidemic sometimes attacked very suddenly. Persons in apparent health, pursuing their usual occupations, would fall to the ground in a state of insensibility, and die in a few days. Such cases, however, only occurred about the latter part of August, at the time the epidemic was most violent. In a majority of cases, the patient was warned of the approach of this formidable enemy by some unusual sensations, which he could attribute to no particular cause. These sensations, in different individuals, were often diametrically opposite. While one, a little before the attack, would have a remarkable exhilaration of spirits, with an increased appetite; another would feel dull, heavy, and sluggish, with a total disrelish for food, an imbecility of mind, disturbed sleep, and alarming dreams. The latter were attacked with milder symptoms, which gradually became more alarming; the former more suddenly and violently, with alarming symptoms from the commencement, and a more speedy termination of the disease in health or death. As soon as the feelings of the patient indicated that all within was not in its usual condition, whether these sensations consisted in an uncommon vivacity or despondency, I found the best effects to result from the timely administration of an emetic and the use of a spare regimen.

Many, I have no doubt, owed their exemption from an attack of this formidable fever to taking a single emetic, properly regulating their diet, and avoiding the exciting causes. There was also a peculiar expression of countenance and eye, with a singular smell of the body and an eccentricity of manners, which would often point out, to even an inattentive observer, an approach of this fever, in any individual with whom he was intimately acquainted. In several instances, among my acquaintances, I have correctly prognosticated an attack of this disease, from the above mentioned appearances. In all those cases in which it came on gradually, after its complete development, emetics were also serviceable. They were likewise eminently useful in all the mild forms of the disease.

For in those cases they operated well, discharged much bilious matter, produced a diaphoresis, moved the bowels, moderated the fever, and relieved all the distressing symptoms. Emetics, when they acted thus happily on the alimentary canal, not only relieved the stomach of its excessive weight and oppression, the sickness, anxiety, and thirst, but destroyed the morbid sympathies the diseased stomach had formed with other parts of the system, as the brain and the skin.

But whenever the disease of the stomach was very violent, the vomiting incessant, with little or no fluid thrown up, the breathing very laborious, and the patient compelled, every few minutes, to blow his breath from his lungs with great force, emetics evidently appeared to add to his distress, and to hasten the disease to a fatal termination. I have seen these medicines exhibited, in such cases, even in large doses, without vomiting, so as to increase the quantity of fluids ejected from the stomach. The great difficulty appeared to consist in the difficulty of retaining emetic medicines a sufficient time on the stomach, to enable them to have their specific effects, so great was the irritability of that organ.

Believing that the inflammation of the stomach was increased from the irritating effects of the remedy, I laid aside the use of emetics in all such cases; at least until this excessive irritability of the stomach had, in some measure, subsided.

When called to a patient with a violent attack of this fever fully formed, instead of administering an emetic, I endeavoured, in the first place, to allay the irritability of the stomach, by giving my patient cold drinks, acidulated or not, as he might desire, which were always eagerly taken, and allayed the inward heat and burning thirst. Mild enemata were also frequently repeated. When, however, the heat of the whole system was preternaturally increased, cold drinks were given sparingly, until blood-letting had diminished the heat and arterial reaction. But when the heat of the skin was moderate, and the arterial reaction not much above the healthy standard, which was always the case after the second paroxysm, and when the heat and burning sensation of the stomach was exceedingly great, the patient was permitted to indulge freely in the use of cold drinks.

When the head was of a much higher temperature than the rest of the system, which was often the case, the patient's desires were gratified, in having that part affused with cold water, which much assisted the internal use of it, in allaying the irritability of the stomach. As soon as the irritability of the latter organ was somewhat allayed, and the vomiting diminish-

ed in frequency, a simple dose of calomel was administered, given in any manner the patient could most conveniently take it, without nauseating his stomach. At the same time his head was affused with cold water, his face washed with vinegar, and volatiles applied to his nose to prevent him from vomiting the remedy, which he was very apt to do (so strong were the efforts made by the stomach to reject its contents,) unless these apparently trifling, but important precautions were taken. If the medicine was not retained, death was certain. At this period, in the present epidemic, it was useless, nay hurtful, to try to retain any other purgative on the stomach, which was bulky, or had the least nauseous taste. I think, however, that I have used with much advantage, a few grains of gamboge, in conjunction with calomel, when the latter alone was inadequate to produce sufficient alvine evacuations.

There were then three things in the treatment of this disease which required particular attention, and which, I think, demand consideration in the treatment of all epidemics. The first, to prepare the stomach for the reception of remedies which are to equalize the broken excitement of the system; second, to prevent the remedies from being rejected by the stomach; and, third, to predispose the system to be acted on by the remedy, in the manner it was designed.

I now proceed to the consideration of the mode best calculated to place the system in such circumstances, so to insure the operation of the medicine. Of all the resources which our art affords, none is better calculated to effect this purpose than blood-letting. This remedy has been much abused. Not from any impropriety in resorting to it in violent congestive bilious fevers, but from using it at an improper time and manner. General blood-letting, in its effects, is certainly not curative. It only predisposes the system to be acted on by other remedies with greater facility. In an inflamed pleura, epispastics and diaphoretics only aggravate the disease, if it be violent, unless the system be prepared for them by blood-letting; and that it is not the quantity of blood subtracted, that produces those beneficial effects, is clear from the well known fact, that in pleurisy a quart of blood drawn slowly away, produces not half the good effects of a pint taken quickly: hence we are recommended to bleed, in such cases, from a large orifice.

In this epidemic, no sooner was the system predisposed to be acted on by the impression blood-letting had produced, than the cathartic, which had been a few hours before exhibited, acted copiously; a perspiration broke out, the tongue became

moist, the internal heat and burning thirst abated, without the strength being exhausted. Indeed, it is the only mode that can be relied on, in many congestive diseases, to increase it; for often, the patient will neither bear depletion from the circulating system, nor from the alimentary canal separately, without producing great prostration, syncope, or death; when, if these evacuations be made at one and the same time, the strength will increase.

It has been almost the invariable practice to draw the blood from the arm. This will answer very well in cases where the external heat and arterial reaction are considerably increased.

But venesection, performed in the arm, is badly calculated to make a sudden impression on the system, if the skin, especially the hands and feet, be cold; and an impression on the system be necessary by which medicine can be enabled to operate, as happened in all our cases of fever attended with spasm. In such cases, experience warrants me in saying that it is far preferable, in order to draw the least quantity of blood, to take the blood from the temporal artery. It thus comes immediately from the heart, and makes an impression on the system sooner, and by a smaller quantity, than would be required if it were taken from some distant vein. This applies in those states of the system in advanced periods of disease in which medicines will not operate, when the extremities are shrunk and cold, the pulse, at the wrist, feeble and contracted, and the heart labouring and swelling with a mass of fluids too great to be moved.

To this practice I was led by a celebrated empiric, who bled in many cases of congestive disease, in which I conceived it would have been immediate death to have bled at all; and it may be generally observed, that when, in bilious fever, or in any other disease, recourse is had to blood-letting from an artery or vein, the indication should be fulfilled before we desist from the attempt. In many cases which call loudly for this remedy, owing to some latent cause, the patient faints on the loss of only a few ounces. The system, however, in a short time reacts violently, and he complains much more than he did before. In such cases, the timid are too apt to lay aside the lancet at a time when it is most needed, and are justly blamed by the patient for making him worse.

After having allayed the irritability of the stomach, administered the most advisable and efficacious purgative, and having waited a sufficient time for it to operate, I bled from the artery until a powerful impression was made on the system, which never failed (if gangrene had not taken place) to effect

copious evacuations of an extremely fetid matter. The patient, so far from being exhausted by these evacuations, would invariably gain strength. If the evacuations, after having been bilious, assumed the limpid character, they were checked by a little laudanum, and no sooner was the morbid matter evacuated from the alimentary canal, than a moisture appeared upon the skin; the difficulty of breathing, the weight and oppression vanished, and the patient, relieved from all his agonies and sufferings, fell into a refreshing sleep.

I must here observe, that the limpid evacuations, which often take place at the close of the operation of a cathartic, should not be mistaken for a fluid, resembling the washings of beef, which often comes away, especially when purgatives are not assisted by sufficient blood-letting, and of which the patient complains as being excessively hot. These evacuations debilitate excessively, and serve only to aggravate, instead of relieving the complaint. With many it is the practice, on the appearance of these watery stools, to redouble their efforts to purge; whilst with others, believing the disease to be of a typhoid character, astringents and stimulants are prescribed. I believe neither plan to be right. In repeated examinations, after death, in such cases, I have always found the duodenum highly inflamed, and often mortified, while the stomach, in a large majority of cases, showed no signs of disease, and even when inflamed, was much more slightly so, than the intestine. An emetic should then be given. If it does not operate in due time, or if it should fail to excite the liver, it should be assisted by blood-letting. After its operation, purgatives will produce evacuations of bilious matter, and, in this epidemic, after a catharsis had been once excited, less powerful medicines, as the *ol. ricin.*, senna and manna, *mag. sulph.*, *potassæ sup. tart.*, &c. combined or not, with a little of the proto-chloride of mercury, would often have the effect of producing sufficient evacuations; and as the irritability of the stomach was much allayed by the first cathartic, these medicines could generally, at this time, be retained, whereas, in the first instance, they would have been immediately rejected. If, however, the paroxysm should again return, and with it the vomiting, and the milder medicines could not be retained, the calomel, in full doses, was repeated, and blood-letting again resorted to, if necessary. An artificial diarrhœa was then kept up, as long as the evacuations were fetid and bilious. Diuretics were exhibited, if the kidneys showed any disposition to become torpid. After powerful impressions had been made on the system by blood-letting, and copious evacuations had

taken place from the alimentary canal, a blister, placed over the stomach, (or, what was better,) to the spine, acted like a charm in relieving it, by equalizing excitement. Used before this time, epispastics appeared to add greatly to the distress of the patient. Local blood-letting, by cupping, was always advantageously resorted to, whether to relieve the pains in the head, stomach, or back.

Injections were generally serviceable throughout the disease. Having found, on dissection, a great many cases of intussusception of the bowels, even in many who had died having no medical aid, I have been in the habit of directing the bowels to be filled, by means of injections, with tepid water, and with much benefit. Indeed, warm water injections answer a better purpose, in producing operations from the bowels, than any mixture of drugs.

When the disease did not yield to the remedies above mentioned, and a feverish disposition, a furred tongue, sleepless nights, and want of appetite, were present, alterative doses of mercury were resorted to, with advantage. For, in such cases, when the excessive arterial action, in every part, had abated, mercury readily produced its specific effects. It should not be combined with opium to constipate the bowels, but merely to have the effect, both of evacuating them gently and of acting on the skin, and also of producing its specific effects on the system. A few grains of calomel and ipecacuanha, given every five or six hours, and prevented from purging too much, by a little laudanum, admirably answers the purpose of fulfilling the above indications. Sometimes, from the peculiar state of the bowels, the external application becomes indispensable, in order to effect a salivation. As soon as the patient complains of a copperish taste in the mouth, or has the mercurial breath, the effect is sufficient, and it should be immediately discontinued. When, however, it is necessary to continue the mercurial disease a longer time, as in considerable derangements of the liver or spleen, it is only necessary so to manage the remedy, that a copperish taste be kept up in the mouth, and not a profuse ptyalism, it being the translation of the disease that is beneficial, not the quantity of saliva discharged.

Unless in cases of local congestion, remaining after the inflammatory stage of fever had subsided, (which rarely took place when the disease was properly treated in the first stage,) the recovery was generally rapid. As to tonics, both in this and all other violent epidemics in which I have practised, a proper and well-regulated diet appeared to be the best. If the

disease be completely eradicated, the patient will soon regain his strength by diet alone.

The physician now should be as cautious in prescribing the diet of his patient, as he hitherto had been in prescribing medicine. I have often known patients, who were convalescing, killed from a species of colic, owing to the officiousness of their friends, forcing them to overload their stomachs with a crude and indigestible mass of food.

ART. II. *Cases of Consumption.* By J. E. COOKE, M.D. of Winchester, Virginia.

My object in the following communication is to give some cases, calculated to shew that consumption is not so incurable as is generally supposed.

In the year 1808 or 1809 my advice was required for a young man aged 18, all of whose brothers and sisters had died of pulmonary affections. As he was the hope of the family, the approach of the disease was observed with great anxiety.

He was bled, blistered frequently on the chest, one plaster being applied as soon as the blister from the preceding was nearly well. He took an emetic of ipecacuanha occasionally, perhaps twice a week, and every day a pill of one or two grains of the same medicine. The diet was low—he soon recovered and became perfectly well.

In 1818, a young lady of pale complexion, with cough and expectoration of purulent matter, applied for advice. She was bled five or six times in the first week or ten days—blistered repeatedly, and treated as above. She rapidly improved; and in some weeks declared herself well. There still remained, however, a slight cough and *very small* purulent expectoration. She would not be advised, went into company, ate, drank as usual, relapsed, neglected herself for six months, and died.

Another, some of whose relations had been affected with pulmonary diseases, had *hectic fever, cough, purulent expectoration, and night sweats*. Under the same treatment she recovered almost entirely, but as soon as she was able to partake of the enjoyments of life, yielded to the temptation, and relapsed. She returned to the treatment above mentioned, recovered again, was again negligent, and again relapsed. In this way she nearly recovered and relapsed several times; but finally, under a severe attack, during which the quantity of purulent matter expectorated was enormous, she died.

In consequence of the marked effect of the treatment, I was strongly induced to believe that if a person would resolutely continue the practice as long as I thought necessary, entire recovery would follow. This opinion was advanced in conversation, and by medical men was reprobated. I could not produce a single case in which complete success had attended the treatment, excepting the first; to which, being in the first stage, objections were easily made.

In the next case that occurred, I determined, if possible, to carry the plan into complete execution. A man upwards of thirty, had pains in the chest, cough, and purulent expectoration, was emaciated, and little or no hope entertained by his friends of his recovery. He had so little expectation of it that he was unwilling to enter upon the painful course proposed. I told him fully what he had to expect, and requested he would not commence, unless he was determined to continue it. He hesitated long, but was finally induced by his friends to submit. The course above mentioned was fully carried into execution. He was bled repeatedly, whenever the pulse would admit of it; he was repeatedly, many times, blistered as above; took every night a pill of aloes and ipecacuanha in equal quantities—which gave one or two passages a day; lived on tea and milk and buttermilk, with bread—avoiding meat or any kind of fermented drink.

When at the lowest, many persons expected his death from the plan: he however lived through it, and continued the treatment and spare diet, until he was able to ride about—he gradually became fat and healthy, and is at this day a large man.

One more case only I shall mention.—L. L. a man about 30 years of age, when he applied to me, had been for some time diseased, and was about going to sea as his last resource. He stooped considerably, his breathing was difficult and hurried, coughed and freely expectorated purulent matter. He was bled very frequently, the rule being to bleed whenever his pulse should become tense, and blistered continually as above mentioned. He took at night ipecacuanha and aloes, and sometimes calomel sufficient to move his bowels once or twice next day. From one to two grains of ipecacuanha and as much aloes answers the purpose generally. He took occasionally an emetic. His diet was tea, coffee, milk, buttermilk, bread and butter.

He commenced this course in September, and continued it till the last of January. When I last saw him in January, he sat as erect as any man could—filled his lungs repeatedly at my request to the utmost extent without inconvenience or

coughing—he had no cough that would have been noticed by any person, and no expectoration; in short, no person could have pronounced what had been the nature of his disease from the existing symptoms. I wished him to continue the diet and occasionally to blister.

This did not satisfy his friends, who had been long privately complaining of the severity of the treatment. They now redoubled their objections; insisted he would be killed by such energetic means, &c. &c. Accordingly, they finally succeeded in inducing him to send for another physician. This was done without my being informed of it, till some time had elapsed. The physician, without knowing any thing of his previous treatment or its effects, excepting from his nurse, but resting his views on the present debility alone, though he could sit up and converse, advised a better diet. This agreeable prescription was followed—he soon became more unwell, continually got worse, and died some months after, two days after having partaken of a meal of animal food.

Fully persuaded from the event of the other case, that his recovery was possible, the treatment was pushed with confidence, and I was flattering myself with the fortunate issue, when the case was thus taken out of my hands, and a long continued and carefully conducted experiment, of the utmost importance, broken in upon at the moment of expected success.

About this time the following case was communicated to me by a friend, and the result of it so incontestibly proves the justice of my opinion, that permission was obtained to publish it.

Dear Sir,

According to your wish I send you the following statement of my case. Most of my nearest connections, of about my own age, died of consumption,—*one* of my two sisters, and *nine* cousins, in two families. My father was saved from the same end, in his youth, by going to sea for many years, and his sister, by living forty years with the most scrupulous temperance, though very often spitting blood, and suffering from a severe cough. I was constantly threatened from the age of fifteen, but occasional bleeding, blistering, and a light diet, subdued the symptoms. In the intervals, I lived and took exercise as usual. My attacks became less frequent, till at last they left me, and from my thirty-third to my thirty-ninth year, though with a slight habitual cough, I had been so free from all warnings, that I had forgotten there could be any danger. Late in the summer of 1810, my cough increased; I supposed

it, however, to proceed from a cold ; all my other attacks had been sudden and severe, and checked by decided measures, excepting one, when I was eighteen years old, which lasted nearly a year. I now felt no pain, had no fever, was constantly about, and lived as usual, till the cough became almost suffocating ; I had, at the same time, some strong bilious symptoms and a light fever. I consulted professional men, and took medicine, &c. but grew rapidly worse. I suggested to them the possibility of its being my old constitutional complaint, but they would not allow it. I, however, was at last bled and blistered, and, though I found relief, I was so strangely infatuated as not to continue these remedies, but ate, drank, and used stimulating medicines. It was insisted, that, as I *had no* pain, my lungs were not affected, and I *must* have the hooping cough, because it was in the neighbourhood, though I had *had* it severely when a child, which all my friends, as well as myself, could perfectly remember. My fever was violent, my strength entirely failed, and was on the point of suffocating ten times a day ; I coughed all night ; my bed was wet through with perspiration ; I became almost a skeleton ; from the bilious state of my stomach, an emetic was administered, after which my appetite entirely failed, though I still continued to *swallow* meat, wine, and the most stimulating medicines. A large boil appeared on my breast, after the blister which I had insisted upon having applied ; this circumstance I urged as an evidence of disease *within*, but it was not regarded. Whilst the blister continued to discharge, my cough was somewhat alleviated ; but the day after it closed, I had a more severe and distressing chill, preceding the afternoon fever, than I had ever experienced. While the fever of that day was raging, the cough and suffocation threatened immediate death. The spasm became extreme, my senses failed, at last were entirely gone. In the struggle an ulcer gave way, and when I opened my eyes again, I was expectorating, with the most agonizing cough, large quantities of matter mixed with blood. This was the first time I had expectorated any blood, though it had frequently been discharged from my head, which I had often urged as a reason for a different mode of treatment. I then saw what was my exact situation ; I wondered at my late blindness. I had watched my sister through the whole progress of her disorder, saw her endure the same agony, with the same result, and then sink rapidly into the arms of death. I, therefore, gave up all hope ; I considered all aid as too late. However, to satisfy my mother, wife, and sister, I sent to a town at some distance, for a physician who had formerly been at

the point of death with the same disease, and who had seen my sister during her illness. The pain in my side now, for the first time, came on, and as the ulcer increased, and new ones were formed and discharged on the opposite lobe of the lungs, my condition became insupportable; in whatever position I was placed in the bed, it was almost impossible to turn from it, on account of the lancinating pains, the extreme soreness within, and the suffocating weight which a word, or a motion, would produce. In an upright position, I was but little easier. The gentleman, for whom I had sent, came, but made no change in the treatment, till after he had watched by me, almost the whole time, for two days and nights. He then said that an entirely opposite course, carried to the last extreme, might *possibly* save me; at least it would relieve me from the raging fever, and dreadful suffocation under which I then laboured, and which every day threatened to be instantly fatal, and that I should sink more gradually and with less pain. I acquiesced. It was then January; the temperature of my room, both night and day, was kept, by a thermometer, at 55° of Fahrenheit, which was not sufficiently warm to be agreeable; if increased, my fever became extreme, and if colder, my cough insupportable. In the first four days after this treatment was commenced, beef soup, wine, coffee, bark, and opium, which I had been taking to support me, were prohibited, though I had no appetite, and was rapidly sinking. Three tea-cups full of milk and water, in twenty-four hours, with a little bread dried in an oven and pounded, with three wine-glasses of tea made of Iceland moss, taken cold, half an hour before the milk, were taken; a very small quantity of cicuta was substituted for the opium. I do not, however, attribute *much* to the cicuta. I was bled moderately three times in the first four days during the fever; I had bleeding from the nose every morning, for two months after this prescription, and frequently, also, from my lungs, in the most violent paroxysm of coughing, which was easily distinguished from the other, by its colour, and the sensation when it was forced away. My breast was *covered* with blisters, put on every night and morning; these means, however, appeared too slow; accordingly, on the sixth day, on the right side over the most painful ulcer, sulphuric acid and the alkali were applied, producing, in a week, a sore which almost exposed the surface of the ribs. This plan was continued for three months without intermission, and afterwards, with some intervals of a week, for a year; rhubarb, sufficient to move my bowels, was given every night. The regular bleeding at the nose rendered venesection unne-

cessary for a month ; and after its cessation it was performed as often as was requisite for some time, amounting to thirteen times in the course of a few months. As soon as I was able to travel, if pain and fever returned, and blistering did not remove them, I was bled, and lived on tea and bread ; after eating even milk for five or six days, I was obliged to intermit it. For twenty-two days my physician continued with me every night till 2 o'clock, regulating, according to circumstances, the bed-clothes ; my limbs were frequently rubbed. I was put on a wooden horse, or an elastic board, which was moved by an assistant ; at first I could not sit upon it for more than five minutes, but in six weeks I could ride with facility, and move myself with a staff with several bars through it, to exercise my hands, many hours in the day. My appetite was literally starved back again in five or six days ; but this was the only good symptom. The same severe treatment was continued ; I gained no strength, but was every day *apparently* at the point of death with suffocation ; I would survive the struggle, and throw up matter and blood, with the hard points of tubercles, and then be, for a few hours, relieved.

To all *appearance* I was now much worse, as the treatment had taken away my colour, except during the fever ; my emaciation was extreme, and my mouth and throat were extremely sore. All who saw me, except my family, pronounced my case desperate, and that the *treatment* must be fatal. This, however, was my last hope, and with our approbation the physician had the courage to persevere. The prospect grew darker, and seemed on the point of closing forever, when suddenly, on the eighteenth day after the commencement of the treatment, when I was in a state of *extreme* feebleness, expecting the afternoon paroxysm of fever and suffocation, which would probably be fatal, the fever was protracted an hour later than usual, the cough was not so distressing, the expectoration was less, the suffocation did not continue so long, and the lancinating pains were not so great.

From that moment I mended slowly. The doctor left me on the twenty-second day, for a week, and then returned and stayed fifteen days more. I now increased the quantity of my bread and milk, but a little excess, even of milk or oatmeal gruel, increased all the bad symptoms, and obliged me to have recourse to blisters, or to be bled. The mere bulk of the most innocent liquid increased my cough ; my stomach was now in so good a state, from the regimen I had followed, that I had no longer any bilious complaint. I kept a small piece of sugar candy in my mouth to check the inclination to cough, and sup-

pressed it by *main strength*, by holding my breath at times ; as the lancinating pain in my side was always brought on by it, even when they did not precede it, convincing me that I *gained* much by *resisting* the cough. In March, the ulcers healed, and all soreness, except of the throat, was gone ; though great tenderness, and frequently pain in my side, accompanied by fever, would oblige me to be bled or blistered, or both, for a long time after ; still the least excess, even in my simple food, reproduced the bad symptoms. I had an extreme sensibility to cold, arising from a constant perspiration, which never lessened till the next September. If checked by cold air, or light covering, the difficult breathing, pain, and fever, were the immediate consequence. I was, therefore, obliged to endure it, and let it wear itself out. All attempts to check it by bracing medicines were equally injurious. I rode much during the summer, but if I had not every accommodation it did me no good. I could not bear the wind or the heat. The *side-way* motion of a carriage, in a rough road, gave me so much pain in my chest, that I was obliged to get out ; the perpendicular motion was agreeable on good roads. The slow and easy trot of a horse I could bear, but was then too much exposed, both to sun and wind. I mended regularly for two years, living on milk, vegetables, and fruit, which had previously undergone some preparation by cooking. I seldom took the smallest quantity of wine, or a mouthful of meat, without being obliged to have recourse to diet or venesection. The second winter I was confined to the house for nearly three months, and was very comfortable with such exercise as I could use within doors.

For several of the last years, I have had no serious return of the complaint. I live much as others do, but with caution ; rarely drink wine, principally because it makes me bilious, rather than affects my lungs ; sometimes I blister my chest ; once in about two years I am bled ; and resort to *starvation* for a common cold, which immediately cures it. I go out at all seasons, and in all weathers, and much more rarely suffer from it, than my hardy neighbours, who do not, like me, guard against the weather. I do not believe that a consumption can ever be cured by *medicine only*, without attention to regimen, air, and exercise. But I think it never should be considered hopeless, because it is a *consumption*, or because it is *hereditary*.

ART. III. *A case of Tumour on the Jaw, and destruction of the functions of the Parotid by pressure.* By THOMAS HUNT, M.D. of Natchez, (Mississippi.)

A NEGRO woman aged about eighteen, was brought to me from Louisiana on Saturday 28th of June, 1823, with a disease of the lower jaw. She says that about eighteen months or two years ago, a tooth became diseased in the lower jaw on the right side below, which was extracted without more pain or difficulty than usual. Soon after a small immoveable tumour appeared about the centre of the jaw on the same side, which has since continued to increase gradually, without pain, until about eight weeks ago. At this time it began to enlarge with more rapidity, and was attended with considerable pain of the obtuse kind. When she was brought to me, the swelling occupied the whole side of the jaw from which it grew, extending from above the angle near the ear, to the mental foramen. The tumour had a smooth appearance, but was very irregular to the touch, feeling hard like bone in some places, and soft in others. Her general health was considerably impaired.

I conceived the cause of the disease to be connected with the diseased tooth. All the jaw teeth on that side became loose one after another, as the disease extended, and were extracted.

July 10th I commenced the operation, by an incision which was carried from a little below the angle of the mouth to the lower margin of the jaw bone, along its base to the angle, and then upwards to within half an inch of the superior portion of the ear, anterior to the temporal artery. On dissecting up the skin and cellular substance, which exposed the whole tumour, a soft part was discovered near its middle, elastic to the touch. Into this the knife was passed, and a large quantity of pale yellow fluid was discharged, about the consistence of thin syrup, amounting to eight or ten ounces. By this incision, which was small in consequence of being surrounded by bone, a large cavity was exposed, shewing the bone to be a shell of unequal thickness, irregular on the outside, smooth on the surface within, and very firm in texture. The cavity was lined by a firm membrane throughout its whole extent, about one line in thickness. This membrane was continued across the vacancy produced by the want of bone, and formed a complete sac.

When I commenced the operation, I expected to find a thin bony case covering a cartilaginous growth which would be

easily removed, similar to the cases related by Mr. Astley Cooper. I was surprised to discover that the bone, instead of being thin and soft, varied from one eighth to half an inch in thickness, and was as firm and hard as the jaw bone itself. In some places where it was very thick, the structure was completely cancellated, with external and internal tables as in the cranium.

At the superior part of the tumour near the eye, there was another cavity of smaller magnitude, lined by a continuation of the same membrane, and containing a similar fluid. The lining membrane was so much compressed by the increasing growth of bone at the junction of the two cavities, that the fluid could not pass from one to the other.

The bone was sawed off throughout the extent of its whole base, from the mental foramen to a little above the angle of the jaw. The operation lasted an hour, in consequence of the delay produced by deliquium, which occurred several times. She lost about a pint or a pint and a half of blood. Several vessels were tied which bled largely, and were much enlarged by disease. The integuments were drawn over and confined by sutures and adhesive plaster. The wound united by the first intention, and the sutures were removed on the sixth day. She was treated on the usual antiphlogistic plan until the fever and inflammation subsided.

A few days after the integuments had united, the part began to swell again, and by the 11th of August had arrived at the size of a hen's egg. It was soft and fluctuating, as if a fluid was contained within its cavity, which was opened freely by the knife, and a considerable quantity of fluid issued from it, similar to that discharged during the first operation. The fluid I supposed to be the secretion of the parotid gland. As the gland had been injured in the operation, I concluded that it would be better to destroy its function by pressure, than to attempt restoring a passage for the fluid into the mouth, particularly as the fluid appeared very much changed from a healthy state. This was effected in a short time, with a perfect restoration of general health, and she has remained entirely clear of disease until this time, May 31st, 1824.

The passage of the parotid duct into the mouth was obstructed. Was not the membrane that lined the bony cavity an enlargement of the parotid duct, produced by the secretion of the parotid being confined within it?

In support of this question, I will state a case that I have been called to several times within the last year. A woman who enjoys good health in other respects, is very subject to

obstruction of the parotid duct from slight exposure to cold. The side of the face in a few days will swell to such an extent that it appears to be in danger of bursting. On examination it can be discovered very distinctly, that the secretion from the parotid gland does not pass into the mouth. The mouth of the duct can be seen projecting and swoln. The swelling of the jaw has uniformly subsided soon after the obstruction of the duct was removed. This I have effected without much difficulty, by a probe bent for the purpose, and a large discharge of fluid has always followed, of a light yellow colour, differing very much from pus.

ART. IV. *Case of Ovarian Dropsy.* By THOMAS D. MITCHELL,
M.D. of Frankford, Pennsylvania.

THE subject of the disease in question, was a woman of regular, temperate habits, about 60 years of age, and the mother of several children. Until within about eighteen months previous to her decease, she had enjoyed as good health as females of her age ordinarily experience. In September of 1822, I attended her for a severe attack of what appeared to be bilious colic, attended with difficulty in discharging her urine. In November following, she sent for me in an attack of complete suppression of urine, which was with much difficulty relieved. These attacks are here noticed under an impression, that they had not a little dependence on the incipient state of the disease which ultimately destroyed my patient. Subsequently to the latter attack, her complaints of irritability of the bladder were frequent, and she was in the constant practice of taking small quantities of spiritus nitri dulcis to obtain relief.

Early in 1823, I was again in attendance. Her abdomen was a little enlarged, and she occasionally complained of something moving about as she turned herself from one side to the other in bed; as also of a dragging sensation accompanying the said motion. The discharge of urine was likewise much diminished at intervals of a few days, never continuing long at one time. Examination discovered more tumefaction in the right than in the left side, and although water was evidently present, part of the swelling was doubtless owing to flatus, which occasioned her much uneasiness. She was a good deal harassed with temporary faintness, fluttering at the heart, burning in the soles of the feet, and costiveness. Her appetite however was generally good, sometimes voracious. The

symptoms collectively, led me to the conclusion that the disease was *ovarian dropsy of the right side*, and the appropriate remedies were accordingly administered. For a few days she would appear to be considerably better; and again all the untoward symptoms would occur.

In the month of July, the symptoms increased in number and violence. She had about her the whole array of nervous disorder that could be supposed to accompany a disease such as hers; and the pain in the uterine region became constant, burning, and in an almost intolerable degree distressing. Together with this, she was much teased with pruritus of the vagina and os tincæ, although those parts were perfectly sound, as far as examination could ascertain, and there was no discharge. The tumefaction not at all increasing, my opinion began to change, and the disease appeared now to be *scirrhus uteri*, though by no means a well marked case. I put her on the use of calomel in small doses, and cicuta gradually increased to large doses. Of this she became weary in a few weeks, because the great desideratum with her was not obtained, viz. immediate relief. Some of her well disposed friends advised the use of Swaim's famous panacea, and believing it to be of little importance what she took, as respected the final result, I consented that she should make trial of that which, in any curable case, I would wholly deprecate. This nostrum, instead of benefiting, actually injured the patient, and it was necessary to call in medical aid. Being in the city at the time, she sent for Dr. Physick, who considered the case an obscure one, but inclined to the belief that a large sac was formed on the mesentery. He depleted her both generally and locally, but without advantage. In one of his examinations of the parts, something suddenly cracked, and the tumour which he had been pressing with his hand disappeared. On her return home, I continued Dr. P.'s practice for some time, at his request, and because I believed it to be the most proper. The pain notwithstanding increased rapidly, and I was obliged to lay aside all the remedies then in use, and exhibit opium freely. This course was continued for several months, during which time a variety of concomitant symptoms were daily combated by suitable remedies.

In May 1824, the tumour which had become large, knotted and very painful, suddenly disappeared, and there seemed to be a total transfer of the disease to the brain. She was highly delirious and forgetful; all pain having disappeared, the opiates so freely given heretofore were discontinued. The bowels became regular, and the appetite tolerable. June 2d.—She was

considerably swollen, and her mental powers completely wrecked. Dr. Pickering now saw her with me, and we agreed to give her calomel with squills and opium, and to reduce the dropsical effusion. These were soon discontinued. June 4.—Great hallucination of mind; nervous and hysterical; complains of burning in the uterine region; not so much swelled; the water appears to be encysted, and it seems to me as though the cyst were formed by an expansion of the uterine tumour. Her appetite is pretty good; bowels costive; sleeps very little. June 5.—Complained severely of burning in the uterus, until about midnight last; she then ceased to complain, and is now quite composed and silent; clammy cold sweat; feeble intermitting pulse; respiration difficult. June 6.—No change. June 13.—No change in the last week, excepting a disagreeable tightness about the stomach. July 2.—Very much altered; constantly picking the bed-clothes; eyes glassy; speech very much changed; gangrenous smell; frequent intestinal evacuations of black matter. July 10.—Died this morning; for two days past, although speechless, and apparently dying, was very sensible to pressure on the uterine region.

Examination after death.—July 12th, 6 o'clock, A. M.—In company with Doctor Pickering and two students of medicine, I proceeded to inspect the diseased parts. On opening the abdomen, a very large mass, appearing to be a sac well filled, presented itself, lying in the right hypochondriac and iliac regions, and extending over to the umbilical region. The bladder, very much distended, was evacuated in order to get a better view of the whole *in situ*. I then passed my hand under the large sac and easily raised it out of the abdomen, together with the uterus, of which it proved to be an appendage; it was, in short, a dropsical enlargement of the left ovary. The uterus was very much shrivelled, as might be expected from the age of the patient, but was perfectly sound, with the exception of a small tubercular spot. The sac, originating from the *left* ovary, and lying in the *right* side of the abdominal cavity, accounted for the dragging sensation and the rolling motion so frequently complained of by the patient. The neck of the sac was long and slender; not more perhaps than three quarters of an inch in diameter, while the sac itself was in its largest diameter about 9 inches, and in its smallest from 6 to 7 inches. On further examination, the large sac was found to contain, or to consist of not less than eight other sacs or cysts of various sizes, some about the size of a hickory nut, and others much larger. All the cysts were very tense and gave to the finger the sensation of hardness and irregularity, simi-

lar to what was so often discovered on applying the hand to the abdomen by Dr. Physick and myself, as well as by the friends of the patient. It was the sensation thus communicated, that favoured the notion of a scirrhus uteri. On puncturing the sac once and again, but part of the fluid escaped; and I should have been compelled to make many openings in order to have evacuated the whole, which however was not my design, as I wished to preserve the parts tolerably entire. The sac held most probably, about three pints of fluid of a gelatinous quality; in colour, a pale yellow. The inner side of the sac was very irregular, rough and much thickened. There was little or no effusion into the abdomen, and the remaining viscera offered no marks of disease.

Remarks.—The patient often wished to have an operation performed, that the diseased part might be extracted. But this was objected to, on account of the great obscurity of the case; and it is now evident that an incision in the right side of the abdomen, the main seat of complaint, could not have succeeded, as the sac originated in the left side.

It has been noticed that in one of Dr. Physick's examinations of the patient, something cracked, as if a bladder had burst, and the tumefaction disappeared. This was doubtless occasioned by the rupture of one of the larger cysts, and the fluid contents being similar to what we find in ascites, produced but little inflammatory action in the peritoneum. The same thing occurred when, in May last, there was a sudden dispersion of the uterine swelling, the principal cyst bursting, caused a diffusion of the fluid throughout the abdominal cavity, and occasioned general tumefaction to a small extent. These sacs were probably regenerated, or smaller ones were made to expand in such a manner as to give the appearance manifest on dissection. But the very severe and constant pain which the patient suffered for many months, is not satisfactorily explained.

ART. V. *An Essay on Stricture of the Urethra.* By HORATIO G. JAMESON, M.D. Surgeon to the Baltimore Hospital.

IN a former number, I reported a number of important cases of Stricture of the Urethra, in which relief was afforded by an operation; postponing my theoretic views to a future period. I also promised to give my views and experience in relation to stricture, curable by dilatation.

The publication of long papers being incompatible with the plan of journals, it becomes necessary to divide such papers into essays of convenient length; this method will always subject an author to the risk of being misunderstood, until he shall have had a full hearing.

Those who have read my first communication with attention, will recollect that I have no where attempted to explain my principles; these were reserved for the present essay, and it may not be amiss to remark that my principles and practice relate to stricture, not to retention of urine. Let it not be supposed that I claim the discovery of a new cause of retention of urine in stricture. Any new views I have, apply not to *retention*, but to stricture.

Persons well acquainted with the subject of stricture, are well aware that retention of urine is but an accidental concomitant. Each of these diseases exist so often independently of the other, that we must be careful how far we confound them. In support of this assertion, it is only necessary to say, that of the ten cases in which I operated for stricture, retention did not exist at the time of the operation in any one of them. That retention of urine will now and then supervene upon different kinds of stricture, I well know; and in confirmed stricture, under such circumstances, an operation becomes necessary, if the inflammation and spasm cannot be relieved by suitable means, so as to enable us to pass the catheter. But I have not yet seen such a case. I shall, in the course of this essay, briefly notice the symptoms which led to my operations, premising some of the opinions of writers on the causes and phenomena of stricture. The cure of this disease, by dilatation, will follow.

The most prevalent opinion among surgeons, down to the time of Mr. John Hunter and Desault, was that stricture consisted of tumours in the urethra, which they termed caruncles, carnosities, &c. To this, however, there are some remarkable exceptions. I. C. Brunnerus, as quoted by Charles Bell, says that upon laying open the urethra of a strictured subject, no excrescences nor caruncles were found, but that there existed a narrowing of the canal, resembling the contraction of the vessels of the umbilical cord after birth. Morgagni relates similar cases. Petit and Arneau were of the opinion that the urethra was sometimes affected by a thickening of the lining membrane, resembling coryza of the nose. These observations did not lead to more correct views of the subject, for even Cheselden speaks of ulcerations and cicatrices of the urethra, which have been "vulgarly called caruncles." To show

how far the profession is still unacquainted with the proximate cause of stricture, and to offer to their consideration a practice in some degree new, shall be the purport of this essay.

Stricture of the urethra may be defined to be a derangement of the structure of that canal which opposes an obstacle to the free passage of the urine from the bladder. It is essentially of two kinds. 1. The spasmodic, or that which arises from a temporary narrowing of the urinal tube, and is occasioned by a spasmodic action of the sphincter muscles connected with it. 2. Those which are produced by a swelling within the tube, or of its parietes. These strictures may be thus arranged: dilatable stricture—valvular stricture—stricture “*par des brides*”—confirmed stricture from thickening of the urethral parietes—confirmed stricture from a narrowing of the urethral canal—stricture from swelling of the lacunæ—stricture from inflammation and swelling of Cowper’s glands—stricture from swelling of the prostate glands—stricture from warts within the urethra. Obstruction of the urethra occasioning retention arising from suppurative, or other swellings from the pelvic bones, being driven in, &c. come more properly under the head of retention, and could not judiciously be placed under the head of stricture.

The remote cause of spasmodic stricture may be, in some degree, constitutional, and, in such circumstances, it is owing to nervous irritability. Stone or abscess in the kidneys, ureters, or bladder—inflammation about the termination of the rectum—or inflammation extending more or less over the mucous membrane of the intestines—may occasion spasmodic stricture. In all these circumstances, if the remote cause be removed before the urethral walls are injured, the stricture will disappear with the removal of the spasm. It is highly probable, however, that spasmodic stricture can never exist for any length of time, from any cause whatever, without occasioning some disease of the urethra itself. A knowledge of the anatomical structure, and of the function of the urethra, and parts associated in function with it, will serve to convince, and, indeed, every day experience teaches, that a continuance of undue muscular contraction upon the urethra will lead, ultimately, to confirmed stricture; how it is effected, I shall endeavour to show presently.

Mr. John Hunter attempts to prove the existence of a species of stricture from muscular contraction of the urethral walls, and, consequently, he supports the opinion that the urethra has in itself a muscular apparatus, which may become in part contracted, and thus occasion stricture. Mr. Chevalier

says he has seen red muscular fibres surrounding the urethral membrane, and considers this circumstance as a confirmation of Mr. Hunter's opinion. Mr. Charles Bell, however, has correctly remarked that similar reddening and thickenings are sometimes to be met in other membranes, as, for example, in the peritoneum. This I have often seen verified by dissection. Mr. Home tells us that the existence of muscular contraction is proved by the fact, that "when there is irritation in the urethra, and we attempt to force up stimulating injections, the urethra will not only contract so as to resist the fluid from passing into the bladder, but that it will be rejected sometimes with considerable force." It is somewhat strange that Mr. Hunter, Mr. Home, and others, should have overlooked what Mr. C. Bell has so manifestly made to appear, that all the phenomena, attributed to the muscular fibres of the urethra, are produced by the muscles surrounding that tube.

Mr. C. Bell is of the opinion, that all strictures are the result of inflammation; with which I fully concur. This author lays it down as a pathological fact, that when strictures become confirmed, the inflammation is situated behind the stricture; this may pretty generally prevail, but more careful examination will convince us that strangulation of the vessels of any one part, or, in other words, spasm of the muscles at the bulb or prostate, may produce induration in any other part, both behind and anteriorly to the unnatural pressure upon the urethra. Mr. Bell tells us that when the urethra is in a state of increased sensibility, "the first drop of acrid urine is followed by contraction, spasm, and obstruction," and that spasm will more and more confirm stricture; and, again, that "there seems to be no stricture without more or less accompaniment of inflammation." Daily experience confirms these positions, and leads to the conclusion that irritation, accompanied with more or less inflammation, is the exciting cause of all strictures, and spasm the proximate cause of these affections in their confirmed state.

Being limited to a short essay, I can only briefly state my theoretic views; much of that illustrative proof, which might be given in a volume, must be left for some future occasion. The lining of the urethra is a mucous membrane. The mucous membranes take on inflammation, and become thickened; differing, in this respect, from the serous, which become somewhat opaque, more dense, and only thicken slightly from long continued inflammation. Of the disposition to swelling of the mucous membranes, we have every day experience in inflammation of the bladder, in coryza of the nose, and in the differ-

ent varieties of cynanche and subacute inflammation of the lungs. And, in proof of such swellings occurring in the urethra, we have the dissections of Morgagni, Hunter, and others, who have found that, in inflammation attending gonorrhœa, two or three inches of the lining membrane was swoln, and every practitioner must have noticed the "bulging" of the urethral orifice, which has been so particularly noticed by Mr. Bingham in his late treatise on stricture of the urethra. Morgagni saw the urethra of a female so "thickened, that an inexperienced surgeon might have mistaken the meatus for the os uteri." Petit and Arneau, as quoted by Charles Bell, held the opinion that the urethra is subject to swelling, resembling coryza of the nose, and "that the disorder attributed to caruncles, arose from a tumour in the spongy substance of the urethra." Mr. C. Bell says that "the stricture, or the part in the immediate neighbourhood of it, is exquisitely sensible," and "no increased sensibility exists without increased vascular action;" and, we may add, that no increased vascular action, in a membranous surface, (I mean the mucous membranes) can exist, to any considerable extent, without producing more or less swelling. Again, "we cannot have better proof of previous irritation and inflammation, than in the formation of an ulcer," nor a better proof, in such circumstances, that there must be swelling. Morgagni, speaking of obstructions of the urethra, says, "these impediments may be particularly attributable to cicatrices, to turgid and varicose vessels, by which a coarctation of some part of the urethra takes place."*

I trust the foregoing facts are sufficient to establish the opinion that more or less swelling in the lining membrane accompanies strictures in their incipient state; a few exceptions will not invalidate this position. Variety of predisposition modifies diseases from other causes. We see miasmata in the same neighbourhood, and at the same time produce remittent, intermittent, and malignant bilious fever; a fact which shows plainly how much influence predisposition has in changing the degree of disease proceeding from the same remote cause. Our surprise must, therefore, not be awakened at finding that inflammation and swelling of the lining membrane of the urethra, though strongly marked in most cases, is in others somewhat obscure.

In my first essay† a case was related in which there was an extraordinary spasmodic action of the sphincter muscles; a

* See Morgagni, XLII.

† See p. 253, Number 26, of this Journal.

fact, no doubt, frequently observed by all experienced practitioners; in this case, however, it was altogether peculiar. While reflecting upon it new views presented themselves to me in regard to the nature of stricture. It is true, no stricture followed the condition of things in the case referred to, but this, no doubt, was owing to the means employed for its prevention. In a short comment on that case, I have said that it served to "excite in my mind the query, whether so powerful an action of muscles at right angles with the urethra might not subject the urethra to strangulation." In page 258 of the same essay, I have been more particular; by carefully reading that passage it will be seen that my views of strangulation of the urethra by no means resemble the strangulation of an intestine in hernia, for, by referring to that passage, it will be seen that induration of the urethra is owing, in my opinion, especially to *strangulation of its vessels*.

I had intended to go into an examination of the surgical anatomy of the urethra. This would enable me more easily to explain my principles, and also to show more clearly the advantages of my operation. Want of room, and the want of drawings which I have not the opportunity to procure just now, prevent my paying any particular attention, at this time, to that part of my subject. It may well suffice at present to refer the reader to the works of Mr. Charles Bell, to John Bell's Anatomy, and to Colles. We shall there see how the sphincter muscles are united in sympathies and in function with the urethra; how the ejaculator seminis exerts its healthy power in expelling the last drops of urine and the semen, and how this muscle is excited into action by any sensation existing in the urethra, whether pleasurable or painful: in the healthy state bringing the urethra, whose size is such as to have surprised Mr. Home and John Bell, into a mere thread; and in the unhealthy state acting with a spasmodic violence upon it, which must not only press tender parts too closely together, but, by interrupting the circulation in the urethra, must occasion swelling, turgescence, inflammation, and thickening from the deposition of coagulable lymph. And if we even lay aside the influence of the sphincter, which surrounds the neck of the bladder of the compressor prostatae, the muscles of Wilson connecting the anterior portion of the inner division of the triangular ligament to the prostate, we have only to turn to the levator ani to see how easily, and to what extent, this muscle may interrupt the urethra in its function, if we may so term that which is altogether passive, and under the control of the sphincter muscles. We need only observe

the fact, that so intimate is the connection of the levator ani muscle with the urethra, that not one drop of urine can pass while the lower portion of the muscle is in action upon the rectum. Is it not easily to be seen that if the levator ani acts thus closely upon the urethra in a state of health, that when there is an increased sensibility of the parts, this muscle too will produce, by undue action, an increase of the evil, and, by spasmodic violence, throw the vascular structure of some part of the urethra into disorder? And I am satisfied, from long observation, that all those terrible indurations which we find in the urethra, are the result of the interruption of the circulation of the vessels of the part, and this I have termed, in my first essay, "a species of strangulation."

Charles Bell has said, that "in diseases of the urethra, as in other parts of the body, inflammation precedes or accompanies increased sensibility." Let us, then, admit that there is inflammation of the urethra, however slight, with increased sensibility, and what are we further to expect? We shall here, as in disease of mucous membranes of other parts, have a vitiated secretion. If we turn our attention to the membranes of the nose and trachea, we shall see different circumstances modifying diseased action in their secreting apparatus. If, in measles and some other diseases, we see a thin acrid discharge from the nose which will often inflame the upper lip, so do we see similar discharges from the diseased urethra. Do we find remarkable dryness of the trachea and nose in typhus fever, and other diseases? similar dryness is seen, now and then, in the urethra; this has been particularly noticed by Mr. Hey, and I have frequently seen it. This state of the parts is sometimes, in slight affections of the urethra, alternated with discharges of different kinds. Do we sometimes observe mucous discharges from the nose or trachea in a common cold, &c.? so do we observe similar discharges from the urethra. And lastly, do we, in chronic cynanche laryngea, sometimes observe purulent discharges, with little or no ulceration? so do we see the like in disease of the urethra. Mr. Hunter has proved that we often have purulent discharges from the urethra, in gonorrhœa, without ulceration. It is easy to see, then, how some remote cause may lead to vitiated secretion of the urethral membrane, and how this vitiated secretion may increase inflammation and irritation, and how this increased irritation will lead to spasm of the sphincter muscles, and this again to induration, &c.

"Where stricture is, there is much increased sensibility; and wherever the stricture is exquisitely sensible, there we are

sure to find the muscles deranged, forming the case which is called spasmodic stricture." All this concatenation of cause and effect, noticed by Mr. C. Bell, has been well expressed by Hippocrates, who has said, "*ubi dolor ibi fluxus.*"

All practitioners must have observed the various kinds of discharges from the urethra, but I think too little attention has been paid to a proper discrimination, with a view to practice. We seem to have contented ourselves pretty much with the terms gonorrhœa and gleet. I have neither time nor room here to go into any investigation of this subject, but wish to call the attention of the profession to a more careful observation, in the early stages of disease of the urethra, to the state of the secretory membrane, since every peculiar condition must have its peculiar remedy.

Before proceeding to exhibit a condensed view of my opinion of stricture, it seems necessary to notice a mistake which is common, and which Mr. C. Bell supports. I mean associating the accelerator urinæ muscle with the sphincters of the bladder. This muscle is, strictly speaking, neither an accelerator of the urine, nor an antagonist to the detrusor muscles of the bladder, but in all cases an ejaculator. I need say nothing of its functions as an ejaculator seminis, since there is no variance of opinion here. But in regard to its function of discharging the urine, we may remark that in a healthy state it is passive, and yields kindly to the column of urine till the last drops are to be propelled. The bladder emptied, the upper sphincters close as the water passing along leaves the tube empty till the last drops are to be expelled, then it is that the ejaculator comes into action, and with a powerful contraction empties the whole tube. And hence it is, that this muscle, so constantly acting with a force little short of spasm, is so liable to be thrown into spasmodic action. How easily then do we account for the circumstance noticed by all respectable writers, of stricture commencing so much oftener at the bulb than elsewhere; and for the fact that such a pressure upon a vascular tube should lead to strangulation of the vessels and this to induration? I am, however, inclined to believe, that the immediate effect of this pressure is turgescence of the vessels of the urethra, and this by interrupting the vasa vasorum of the tube in their office, leads to induration, and where there is induration there is stricture.

Let us now more particularly examine the phenomena which attend an irritable state of the urethra. Is the lining membrane preternaturally sensible? the urine no sooner passes into the upper part of the urethra than the ejaculator contracts

powerfully, because of the over stimulation of the urethral membrane; and the anterior portion of the ejaculator muscle being at right angles with the urethra by its contraction, will not only strangulate the vessels, but by opposing an obstacle to the passage of the urine, greater force will be required of the detrusor urinæ muscles. Hence results irritation and inflammation of the bladder. This opinion only requires the qualification common to all pathological phenomena; that is, that here as in all other cases, we will find modification and irregularities; there being in diseases of the human body no laws absolutely fixed beyond the control of circumstances. It sometimes happens, however, that owing to irritation or inflammation about the neck of the bladder, that the upper sphincters are alone involved in the spasmodic action, and in this case we will have the same result as from spasm of the ejaculator. This form of spasm is most common in the aged, and is often accompanied with swelling of the prostate, but I have now and then seen it in young men. It is mostly attended by pain at the glans penis, by discharge from the urethra, and will sooner or later be attended with induration. I have been induced from my own observations, to believe that this form of spasm attends most cases of fistula in perineo, and swelling of the lacunæ.

Whether the increased sensibility of the urethra be situated at the commencement of it or at the bulb, the disorder is sometimes very slight and very slow in its progress: indeed, I feel well convinced that the inflammation from gonorrhœa, or irritation from masturbation in youth, lays a train of morbid associations which lead to the establishment of stricture in old age. These slight disorders often give but little disturbance, yet patients who are not even aware of any morbid condition being present, no sooner practise any little imprudence in venery, in spiritous drinks, &c. or fall into fever, than they are sensible of some tenderness in the urethra, and perhaps some obstruction to the free discharge of urine. There will be at times a little gleet discharge, and an imperfect action of the ejaculator muscle; in the act of coition the semen will creep backwards, or be imperfectly expelled, and in the discharge of the urine, the last drops hang about the bulb, and pass away so as to soil the linen some little time afterwards.

We have seen that whatever occasions an increase of sensibility in the urethra will lead to powerful contraction of the ejaculator muscle, and so oppose an obstacle to the flow of urine; and we have only to extend our inquiries a little further, and we shall see that the lining membrane being

very tender, and the muscle acting with preternatural force upon it, will have its surface brought suddenly into contact, and thus the spasm is increased and prolonged; the spasm producing pain and obstruction in the circulating vessels, and the pain on the other hand increasing the spasm. These parts associated in function in health, are brought into operation in a state of disease; the affair always ends in the injury, to more or less extent, of the urethra, and the result is stricture; besides, the inflammation may extend to the mucous coat of the bladder.

The reader can now be at no loss to understand my meaning in regard to strangulation of the urethra, which I merely hinted at in my first essay. We need only examine into the vascular structure of the canal, to be convinced of the accuracy of my views of turgescence, of increase of inflammation, of the increase and deposition of coagulable lymph, and finally of induration from undue action of the sphincter muscles. Mr. John Bell illustrates well the vascular structure of the membrane of the urethra, though with different views, when he tells us how the blood sometimes pours fourth upon introducing the catheter from injuries done by falls, where the lesion does not extend beyond the vessels of the lining membrane, and how patients affected with venereal ulcers and inflammation, have come into his room with their pantaloons filled with blood. Now the mere obstruction of the circulation will increase the volume of the urethra, and this increase of bulk will oppose a new obstacle to the easy action of the muscles, for in the healthy state this tube is reduced to a mere thread, but when in a state of congestion it will not yield. Under such circumstances, unless the muscles be rendered less active by the employment of the usual antiphlogistic means, the urethra will be brought into a state of induration constituting confirmed stricture. I have already said the induration will not universally be at the part under immediate pressure, but as a general rule this might be insisted on. In confirmed stricture at the bulb, we often have another about four and a half inches down the urethra, and this latter part is sometimes affected alone. But in all cases of actual induration, we can account for its existing in particular parts. There is always a narrowing of the urethra through the glans penis—this part not dilating and contracting to the same extent as other parts of the urethra, which accounts for that form of stricture which C. Bell says "may be seen," and which is sometimes so very obstinate. Let me remark, that as it is occasioned by spasm of the ejaculator, it is

to be cured by the sound introduced in the common way, till the sensibility of the urethra is overcome, and the spasm thus removed. Is the stricture at the next point, or four and a half inches down? we have here some slight pressure upon the urethra from the weight of the penis hanging here by the ligamentum suspensorium penis. Is it at the bulb? that is already explained. Is it at the head of the urethra? the observations of Morgagni and of Mr. Weldon go to show that swelling of the middle lobe of the prostate by distorting the entrance into the urethra, may unduly extend some of the adjacent muscles, and thus lead to obstruction and induration of that part of the urethra.

I have said that spasmodic stricture sometimes proceeds from constitutional defects—all respectable writers speak of such association. Mr. A. Cooper mentions some interesting cases. In these we shall usually find the primary disease situated in the chylopoietic viscera, the intestines, the kidneys or bladder, and dependent upon or associated with debility of habit, and requiring a tonic plan of treatment; but there are exceptions, and hence arises a necessity for much caution in deciding upon the treatment. We need only turn to the resemblance in structure and function of the different textures, to be convinced how easily diseased action seated in one part of the body may extend through others in consequence of such similarity of texture. This pathological view explains the fact, that disease of the urethra is caused by disease of the mucous membranes in some other part, most frequently I believe in the mucous membrane of the intestines; but whether it be seated in the chylopoietic viscera, kidneys, &c. it consists of inflammation, which may be acute, subacute or chronic. If the diseased action be in the intestines we shall have diarrhœa at times, at others costiveness with dryness, and both states attended with a good deal of irritation about the lower end of the rectum. The nature of such association of diseased action can only be illustrated by such explanations and observations as require too much room for this place; but I hope what has been said will lead to further investigation, and to a careful adaptation of treatment to the different varieties of diseased action.

Among the local remote causes of spasmodic stricture may be noticed calculous affections of the kidneys, ureters or bladder—scirrhus, cancer, or tumours growing in or about these organs. I need say nothing here of the treatment of such cases; let it suffice to say, that whatever may be the cause of of spasmodic strictures, no operation on the urethra can ever

be proper, except that of the catheter. Such cases sometimes call for very active measures, and bleeding holds an important rank.* But I need not particularise on a subject so well understood.

Dilatable Stricture.—The foregoing explanation of my views of the remote and proximate cause of spasm and induration of the urethra does away the necessity of saying much on the cause and nature of dilatable stricture. Indeed spasmodic stricture and dilatable stricture are but different stages of more confirmed cases—the first being inseparable from all strictures, and the latter but the incipient stage of a confirmed stricture. Mr. C. Bell has given us some interesting observations on dilatable stricture in regard to its nature and symptoms; but I do not approve of his treatment, of which I shall speak hereafter. To understand what is meant by dilatable stricture it is only necessary to recollect how the healthy urethra is dilated and expanded by the column of water from the bladder, and how when the water has passed off, its parietes are brought together by the sphincters—and then observe the contrast when the urethral membrane is in any degree diseased. Its increased sensibility by stimulating the muscles into undue action will lead to the condensation or agglutination of the membrane where it naturally lies in wrinkles. This agglutination prevents the free dilatation of the tube, and hence it is that the patient is sensible of some discharge and obstruction at times.

When inflammation has become chronic, from whatever cause it may have originated, (frequently however, from gonorrhœa,) we shall find more or less discharge from the urethra, and this discharge will not only vary in quantity from the most trivial causes, but if the patient falls into any irregularity in regard to regimen, becomes fatigued, or has connection with women, the case will assume a strong resemblance to gonorrhœa. Upon introducing a bougie or sound, we shall meet with interruption at one or more points—owing to there being a slight degree of induration and contraction, and an increased sensibility. This state of things may continue a long time: Mr. C. Bell mentions a case of 18 months standing; I have seen cases of several years. These cases were attended with all the sufferings and difficulties of confirmed stricture, the urethra most exquisitely sensible; was neverthe-

* In my first essay, in speaking of blood-letting in cases of obstruction from inflammation, I quoted the bold practice of Cheselden, who says he once bled a man to the amount of three times 24 ounces in 24 hours—it has been printed 24 ounces at three times.

less dilatable by the sound. In these cases, which are very common, the profession have used their best endeavours to cure the disease by internal remedies. Balsams, cantharides, with diluents and other diuretics, have been patiently used for years, and often without any advantage, and where the disease was local, perhaps these means were never effectual. In the present day cubebs and pepper stand on our list as conspicuous articles, but where the disease consists of chronic inflammation with slight induration, these remedies are often wholly useless. I have treated a case of this kind with the utmost attention upwards of three years, and did not succeed in affording any material relief; balsam copaiva with spirits of nitre, tincture of cantharides, pepper, cubebs, &c. were all used in succession, time after time. This patient never experienced any difficulty in passing water, the stream being free and full, except at times from ardor urinæ. The sound in this case discovered no stricture, but two points were exquisitely sensible, particularly at the bulb, and in a slighter degree at the entrance of the bladder. The introduction of the sound for a few months has greatly improved his condition; nocturnal emissions and the discharge which had much impaired the powers of virility, and the extreme sensibility of the urethra have almost disappeared, and the use of the sound is continued now rather as a means of confirming the cure. An another instance, a patient complained of constant uneasiness at the glans penis, attended with a drop or two of gleet discharge at times, and a redness on the upper side of the corona glandis. Under these circumstances, gentlemen of experience in the profession endeavoured to persuade him that there was no disease, that the whole was imaginary, and that by patiently waiting a little time, those unpleasant feelings would disappear. His predictions were not verified; on the contrary, after waiting some considerable time, I was consulted. On introducing the sound, nothing amiss was discovered till the instrument reached the caput gallinaginis, where there was a state of increased sensibility and an unnatural tightness, requiring considerable pressure to overcome it. A few weeks were employed in introducing the sound twice a week; the redness at the head, and the uneasiness which had at times amounted to pain, disappeared. He finding it inconvenient to call on me, desired a trial of some internal remedy. I put him on the use of the bals. copaiv. and sp. nitr.; from this he experienced some benefit for a little time; the disease then returned, and he became desirous of using the sound again, having indeed fallen back into his former condition. The use of that instrument spee-

dily improved his condition, and I have no doubt will eventually cure him. I have seen many similar cases.

The reader will no doubt have anticipated me in the conclusion, that opening the urethra with the knife can never be advisable in dilatable stricture. This is most unquestionably true as regards cases in safe hands; but suppose a patient labouring under pretty severe dilatable stricture, from some imprudence, fever, or accidental circumstances, is suddenly thrown into inflammation and swelling which lead to retention; and that under such circumstances an ignorant practitioner tears the urethra by attempting the introduction of the catheter—and before better aid can be had, the retention, inflammation of the bladder, and violent suffering, threaten the speedy destruction of life, how long are we to wait? I would answer, so long as a good surgeon would refrain from paracentesis of the bladder. Where there are good reasons for puncturing the bladder, laying open the urethra is equally safe and vastly better, as it will secure a speedy cure in most cases, as well of the inflammation, &c. as of the stricture.

Valvular Stricture.—This form of stricture has been noticed by C. Bell, and is well represented in his fourth plate.* It has been resembled by Goulard and Desault to the valve of a vein. Morgagni mentions† a case in which some fleshy fibrillæ were seen in the urethra by the side of the seminal caruncle, which had offered some resistance to the introduction of the catheter during the confinement of the patient. This author also says, that in an urethra affected with several old cicatrices, there was “distinct and prominent fibres which formed a kind of small triangle, the basis of which was near the bladder, while the apex touched the caruncle.” Many similar cases might be cited from books, but these are sufficient to show what I mean by valvular stricture. It would be a work of supererogation to dwell upon this part of my subject, after the masterly descriptions and observations of Desault. I shall therefore dismiss it with a few words. Can we with certainty distinguish between the stoppage of a sound by an enlarged prostatic duct, and fibrillæ or a little membrane-like production lying across the urethra high up in that canal? Can we then, in this state of uncertainty, venture with safety on the use of caustic? assuredly not. What is left us then as remedial means in cases in which we discover these valvular strictures? Dilatation only, not however by means of bougies, as

* Charles Bell on Stricture of the Urethra.

† Morgagni, X. XL.

directed by Desault, but by a metallic sound highly polished. An experienced hand will distinguish this form of stricture by a careful trial with a smooth sound, of a size properly adapted to the size of the urethra of the particular individual. Those less experienced will do better with the ball probe, as with this instrument they will not only distinguish the peculiar hardened feel of the urethra, common to confirmed stricture, if any exist, but also the extent of the obstruction, provided they succeed in making the ball pass the stricture. If the case be simple valvular stricture, there will neither be much in extent of the urethra involved in the disease, nor any perception had of induration. It is obvious, however, that this form of stricture is sometimes blended with a confirmed stricture in some other part, and under such circumstances as would justify the laying open the urethra on account of the induration, we may always calculate on curing the valvular obstruction by the operation.

Stricture "*par des brides*" of the French, has long been known—according to Mr. C. Bell, the term was used by La Faye. Mr. Hunter resembles this kind of stricture to a thread tied round a tube—sometimes extending all round, at other times but partially so. But this author having been of the opinion that the urethra is muscular, and that stricture is caused by the contraction of a part of those fibres, was led into error in regard to its frequency. Many observations, however, support the opinion that this form of stricture is pretty common. Mr. C. Bell has given an interesting dissection in proof of such contraction, but justly denies the supposition of Mr. Hunter, that it is occasioned by the contraction of muscular fibres of the urethra. This kind of contraction was observed by Morgagni, and he attributes its formation to ulceration and consequent cicatrices. I believe, however, that this form of stricture may arise without previous ulceration. Mr. Hay tells us that he saw a cord-like production formed out of membrane, passed around an intestine so as to produce strangulation. I have seen a case somewhat similar, differing only in this, that the intestine lay doubled in a looped form through such a cord. By turning to the urethra in the healthy state, we have only to observe its wrinkles or plaits when closely contracted, to see how easily inflammation, or any other impediment to the free and regular unfolding of those plaits during the passage of the urine, will lead to the agglutination of fibres thus bundled together, and how such consolidation of such bundle or fasciculus will form the deformity in question. These contractions, it has been observed, run

in different directions : this is a sufficient refutation of Mr. Hunter's opinion, but is no objection to the opinion I have just advanced, since the urethra is perpetually liable to, and capable of extension and contraction as well in its length as in breadth. These cords will sometimes be found on the outside of the urethra, and therefore show most plainly to the most common capacity, how unsuitable the use of caustic must be in such cases ; as you must of course, where the stricture is exterior to the lining membrane, destroy the membrane before you reach the stricture. In this form of stricture we have the same means for ascertaining its existence as in valvular stricture—that is, the contraction will generally be short, and the lining membrane not so much indurated as to exhibit to the sound or ball probe, that peculiar hardened cartilaginous feel which we have in confirmed stricture. Dilatation is the proper remedy in such cases—but in those which are rendered desperate by violent contusion of the parts, from falls, &c.—and retention or violent inflammation being superinduced, we should lay open the urethra.

Confirmed Stricture with thickening of the Urethra.—It would be a work of supererogation to cite authorities to prove the existence of this form of the disease. Our practice affords daily opportunity of seeing this disease. I need hardly repeat what I have said in this essay respecting the manner in which irritation and inflammation lead to spasm, and spasm to obstruction, turgescence, and finally induration and thickening of the lining membrane of the urethra. Mr. C. Bell has given an interesting drawing of such a case, which is of itself sufficient to explain the nature of this disease—and Mr. John Bell, speaking of this kind of stricture, says, “ we speak now of cases where bougies are but a torment, and the caustic ineffectual ;” and further, if we “ feel a space of the urethra nearly half an inch in length, small and hard like a big thread, at which the bougie or catheter stops, we have reason to fear that not a hundred applications of caustic would destroy such a stricture.”

It is proper to remark, that this form of the disease before us, existed to a great degree in all the cases upon which I operated. Mr. C. Bell has known the urethra to close up from this form of stricture, and a puncture having been made into the bladder, the patient passed his urine for years through the puncture. How different would have been the situation of this afflicted man if his urethra had been laid open, and the stricture cured in a few weeks, so as to leave all the parts involved in the disease in a condition to perform their wonted

functions with regularity,—and how many such cases might be collected? Mr. C. Bell has justly remarked, that the caustic potash which affords so much relief in dilatable stricture, by destroying morbid sensibility, (as it does when applied to an ulcerated cornea,) will produce little or no effect upon confirmed stricture. He relies much, however, on the lunar caustic, when the disease is fully established and extensive. Caustic of all kinds, in my opinion, is out of the question in this form of stricture. But I am well convinced from experience, that we have much in our power in the employment of means for dilatation, but to be successful they must be used when the patient is in the best health, and the urethra the freest from inflammation and irritation, which we can obtain by such regimen and medical treatment as the case may call for. When from irregularities of the patient, or from accidental circumstances, or from improper treatment, violent spasm or inflammation extending to the bladder come on, there would often be much risk in delay, which may be avoided by an operation.

As an intermittent fever serves to illustrate the phenomena of all fevers, and afforded to the celebrated Dr. Cullen grounds for his ingenious theory of fever; and as indeed we must acknowledge, whatever theory we adopt, that the intermittent fever is the most simple form of fever, and that fevers are the most regular which approach nearest the intermittent form; so in cases of stricture, the confirmed stricture with thickening of the urethra is the most regular and perfect form of stricture; that is, its phenomena are the result of the most regular deviation from health, and in which the pathological laws are most obviously the result of certain causes. And if we see those aberrations from the regular phenomena of the diseased actions in strictures, producing now and then irregular and uncertain phenomena, so do we see miasm, though capable of producing in ague regular morbid phenomena, exhibiting irregular symptoms in remittent and continued fevers.

This seems to be a suitable place for a very short recapitulation of the circumstances which lead to my operations on the urethra, in the cases detailed in my first essay. In all those cases there was great irritation, or active inflammation of the bladder, with very frequent and painful micturition, and with one exception, inability to introduce any instrument into the bladder, and in that case the act of passing the catheter was little better than the whole pain of my operation. In several

cases the urethra was bursted, and mortification ensued—in another a stone had been three years lodged at the prostate gland—one attended with fistula in perineo—all which, when accompanied with confirmed stricture and inflammation of the urethra and bladder, whether there be retention or not, calls for the performance of the operation.

All experienced surgeons are aware, that under such circumstances as have just been pointed out, death frequently occurs, and hence there must be risk in delay. Let us here endeavour to ascertain why disease of the urethra and bladder sometimes prove unexpectedly fatal. I have endeavoured to prove that where the urethra is affected from morbid action, existing in some other part, that it is owing to that peculiar law of the living body which associates certain textures in function and in diseased action, and that therefore when other diseases give rise to inflammation of the urethra, it is seated both in its primary location, and in the urethra in the mucous membranes. This law, so obvious, is not more certain than that where disease passes from one texture to another that the translation is governed by laws equally regular; that is, the translation will not be irregular and uncertain, but pass by regular laws from texture to texture, or from system to system. The phenomena presented in fatal cases of diseases of the pelvic viscera, are attributable to inflammation, being transferred from the mucous membranes to the serous.

It has long been an established opinion among surgeons, that peritoneal inflammation is one of the greatest dangers attendant upon the operation of lithotomy, and severe inflammatory affections of the bladder, prostate gland, and urethra; and it is equally well known, that in the fatal termination of such cases, the encephalon is involved in the disease. These facts strongly prove that there is a nervous influence extending through particular structures, and that when any one part of such structure is diseased, other parts partake of the morbid condition. It may serve to facilitate the explanation of my views here, to advert to the notion of the ancients respecting the dura mater and pia mater, being the parents of the membranes. Now whatever views they may have had in drawing such a conclusion, it is clear to my mind, that had they viewed the dura mater and pia mater as the parent or origin of the serous membranes, they would at least have led us to important practical inferences—seeing that nothing is more certain than that violent inflammation of the serous membranes, when unopposed by art, or when our art fails to

arrest its course, will lead to disease of the membranes of the head.

How many patients labouring under violent inflammation, obstruction from stricture, &c. have died in the hands of the most skilful surgeons, while they were deliberating about the propriety of tapping the bladder. I have in my first essay, related a case in which, while we were waiting in doubt, coma came on and the patient died. Let us beware then, and not delay too long opening the urethra, or inflammation passing from the mucous to the serous membranes will thus reach the membranes of the head and prove speedily fatal. John Bell says, that inflammation of the urethra and bladder is often dangerous, owing to the brain being brought into the diseased association. In page 230 of Bell's Surgery, abridged by Dr. Smith, we have the following interesting observations:—"Obstructed urine, hernia, and lingering labour resemble each other so entirely, that in each case the same signs indicate the same danger. In the common fate of the patient, those three cases unhappily agree too well; **DELAY IS THE GREATEST DANGER**, and perhaps I have not in this book announced a maxim of more importance than this. I entreat the young surgeon to beware of delay. In suppression of urine, it is most painful to see that the needful operation is usually performed too late, that the patient's resignation avails him nothing, and that the dexterous operator has nothing to reward him for his skill and dexterity." And again, "this I am well assured of, that there is no mode of operating, no kind of danger equal to that of delay." "It is, I believe, the opinion of all good writers, the maxim respected in all æras of our science, the fair deduction from all the fatal or prosperous cases on record, that we should, in retention of urine as in hernia, operate early." Mr. Bell then proceeds to give some cautions, lest young surgeons may be too precipitate in hurrying into an operation, and cautions them not to mistake irritation and an exhausted state of the patient for inflammation of the abdomen, but concludes again with the words, "every surgeon of experience must have observed, that in dangerous distentions of the bladder the abdominal pain ceases, the pulse subsides, the tossing of the patient, and all the signs of indescribable uneasiness vanish as soon as the catheter or trocar is forced into the bladder." In qualification of what Mr. Bell has said, Dr. Smith reminds us in a note, that Desault punctured the bladder but once at the Hotel Dieu in ten years practice, and regretted that one operation. Are we to believe from this, that no patients died of diseases of the bladder in all that time un-

der Desault's care? If we were even to admit a thing so improbable, who is there among practical surgeons in America or Great Britain, that have not seen patients die from inflammation of the bladder, sometimes from retention, and sometimes after its removal, and indeed, where total retention did not at all exist? It may suffice here to call the reader's attention to my own cases; fistula in perineo, with confirmed stricture, &c. a stone lodged for years in the upper part of the urethra with confirmed stricture; the urethra in several cases was bursted, and gangrene with confirmed stricture present, a scirrhus tumour in the perineum and over the scrotum with confirmed stricture, &c. Who would disapprove of an operation in such cases, when attended with inflammation threatening destruction? Besides, I trust it will be conceded, that my proposal to operate is founded on new views which offer advantages not presented to the mind of Mr. Abernethy, Desault, and others. Puncture was often but a palliative, and left the patient miserable for life, whereas by the method I have practised, we not only relieve the patient from present pain and danger, but in three or four weeks mostly, we completely remove the most obstinate confirmed and painful strictures. In bad habits a longer period may be necessary, but from the time a tube is introduced, the patient is comparatively comfortable. The only objection to these remarks might arise in cases of scirrhus of the prostate, but even here I should not hesitate to open the perineum, and to introduce a tube, and if requisite, I would divide the fibres surrounding the urethra, so as to pass the tube easily into the bladder. This procedure affords this immense advantage over puncture, that by it you lay the detrusor and sphincter muscles out of use, whereas from simple puncture the urine will occasionally collect and bring those muscles into action, and thus augment the pain and inflammation, and heighten the danger of the patient.

I do not deem it important to insist on the opinion respecting the danger growing out of an extension of inflammation to the serous membranes, and through that medium reaching the head. This is the most rational way of accounting for it which has presented itself to my mind, but I have neither time nor room to offer that illustration which the nature and importance of the subject requires. I shall therefore content myself with one remark; whatever importance we may attach to the belief of danger from urinal infiltration from wounds admitting urine upon the pelvic viscera, no objection can be inferred from such a belief unfavourable to the opinion, that in all cases under view danger arises chiefly from inflammation of the se-

rous membranes, and that it is through this medium that morbid action passes from the pelvis to the head.

Phlegmonoid swellings in the perineum will sometimes in cases of confirmed stricture cause the urethra to burst. Mr. A. Cooper and John Bell advise opening such suppurations as soon as practicable. I view this as sound and important advice, but I have seen a case in which the urethra burst before there was a possibility of opening the abscess; at least no man in his senses would have thought of cutting down an inch through a part exquisitely painful and inflamed, and which by its hardness prevented all access by the touch, to ascertain the existence of matter. In such a state of things, a small quantity of matter bursted into the urethra, and mortification succeeded in a few hours, as may be seen by turning to the case of Mr. C. in my first essay. In all such cases, if you have the corded indurated state of the urethra, which you feel inwardly by the sound, and a cord-like feel of the urethra in the perineum, make no delay in opening the perineum and urethra into the bladder: in the operation there is safety; in delay there is much danger.

In proof of the danger of delay, I have yet to offer a case from Mr. C. Bell, with a few remarks on it. This author says, paragraph 34 of his work on strictures, that "there is a period of spasm and irritation, when the slightest increase of inflammation, will form fistula or burst the urethra." And he relates a case in which this unexpectedly took place; for Mr. Bell says, "it was remarkable in this man's case, that the stricture was by no means of an obstinate kind, and allowed the bougie to pass and the urine to flow: I presume this patient died. Such cases are common. In others, however, before rupture occurs, or a fistulous opening has time to form, the patient dies from inflammation. Let us not then be too timid about an operation, which in itself I have no hesitation in saying, is perfectly safe, and if one patient perish in the hands of a skilful operator, it will be from inflammation attendant upon the disease, but never from the operation.

In page 280 of my first essay, where, speaking of the case of Mr. Sweeney, this being the ninth case upon which I operated, I have made the following remark: "This is the first in which I operated on the urethra, where the catheter could be introduced into the bladder." I have, however, apprised the reader of the extreme danger and pain attending the introduction of the instrument, and the great degree of irritation and inflammation which existed, and which threatened speedy death. In concluding my remarks upon the case, I have ex-

pressed, as my opinion, "that had this patient consulted me before the attack of inflammation, which led to the retention, I think I should have been able to have cured him by dilatation." By turning to the case it will be perceived that I here allude to retention which existed a week before the operation, but which I, with difficulty, overcame for a few days. These remarks, I trust, will do away any erroneous impressions, if any such exist upon the minds of persons who have inattentively read my first essay, that I rashly propose a formidable operation on slight grounds.

But I have succeeded so much to my satisfaction in cases of confirmed stricture with thickening of the urethral walls, by means of dilatation, that I should do myself, as well as the profession, injustice, if I did not give some account of my experience in that way. This is a subject so generally understood, that, with the exception of a few particulars, nothing new can be offered; but these, I consider, are of the greatest importance. They are, first—no bougie of elastic gum, waxed linen, catgut, or flexible metal, should ever be used for the purpose of dilatation. In cases of retention, there are exceptions which will be pointed out in their proper place; (yet I have seen a sailor using a willow switch, and, indeed, as far as regards dilatation in a diseased urethra, I think it little inferior to the bougies in common use.) In the second place, having provided sounds of pure silver, which alone will retain their brightness and fine polish, and these of proper sizes and curvature, and finished with the most exquisite polish, having the end a true hemisphere, and not less carefully finished than the body of the instrument, we are then, and then only, prepared to go judiciously and safely to work. Take the patient in the best state you can obtain, by such palliative means as are usually employed for the removal of inflammation and spasm. Against the morbid sensibility of the urethra it would be useless to contend, and as, also, the gleet which is a frequent concomitant; these last can only be overcome by the sound. You begin with the most gentle measures; pass a sound of moderate size as far as it will go with a very gentle force; if it will not pass, take a smaller; if this will not pass, be in no hurry; dismiss your patient for two or three days; you will generally find, both in dilatable and confirmed stricture, that the introduction of the sound gives much pain at the moment. It soon goes off, if no improper force is used, and, by the second day, the patient can bear it as well, and perhaps rather better, than at first. Thus you go on with the most gentle trials to enter the bladder; having passed a small instrument into the blad-

der, a few lines, try a larger ; if this will not pass by gentle repeated trials, leaving intervals of a minute or so between your trials for the spasm of the muscles to go off, return to a smaller. But if there is difficulty, wait patiently and calculate to overcome the obstruction, more by perseverance than by force. As a specimen of what patience and perseverance will do in these cases, I will mention two cases in which I spent two months in getting through the stricture, and yet succeeded completely in effecting cures by dilatation. I have observed, however, that, in most cases where stricture is fully confirmed and of long standing, the urethral surface is less sensible than in bad cases of dilatable stricture. This affords us some facilities in practice, but, if we attempt to work too rapidly, we shall incur great risk of laying up our patient with inflammation, retention, &c. A third particular relates to the method of introducing the sound.

Ample and interesting directions have been given for the introduction of the catheter, or bougie, in cases of obstructed urethra. It will be sufficient to notice a few peculiarities of John Bell, Desault, and Mr. Hey. Mr. Bell advises us to catch with a hooking-like motion of the instrument up under the pubis, so as to raise the point into the opening at the caput gallinaginis. Desault speaks, among other methods, of a boring-like motion with a flexible catheter having no stilet. Mr. Hey speaks of having sometimes succeeded by withdrawing the stilet of a flexible catheter an inch or two, while the tube is gently pressed forwards. We are generally advised to smooth down our bougies and give them a suitable curve, before we attempt to pass them into the bladder. All these directions are highly valuable in cases of retention, and, now and then, it is only by trying them all in succession that we can succeed in passing an instrument. But, as regards the sound in cases of stricture, and mostly with the catheter in retention, we will succeed better by a method which I invariably employ for the purpose of dilatation. In retention, I often succeed by Mr. Hey's method, and, now and then, by that of Desault and Bell. In stricture, this is my method: Taking a long sound, I enter it with its concave side to the abdomen and its handle as close to the body as I can keep it; I now press down the point by a gentle pressure, keeping the handle close to the belly. If I have any doubt about the point being at the lowest point of the urethra, in the perineum, I apply a finger to the part and feel for the point of the instrument. If the point is not fairly down, I press the instrument with a force gently increased, without changing its position in relation to the abdo-

men. Satisfied of this by placing a finger of the left hand on the perineum, I, with the right, gently carry down the handle of the instrument, pushing, now and then, slightly forwards, but depending, almost entirely, on simply depressing the handle downwards, and this I mostly do after the point of the sound has turned up under the arch by the point of my right fore-finger. By this procedure, as soon as the point begins to rise up under the pubis, that part of the penis, tied by its proper ligament to the pubic bone, will form a complete fulcrum, upon which the sound will be made to describe a circle; or the same support to the sound will be found at the perineum; either or both these points will afford a fulcrum to the sound, according to the particular curve of your sound, its depth in the urethra, and the make of the patient. But, from much practice, I advise, as the best method of introducing a sound, simply to pass it down to the turn of the urethra, and then, by depressing the handle of the sound, you will not fail to send the instrument into the bladder, (if the urethra can be opened at all,) without in any way changing the manœuvre already designated.

I was led more particularly, by C. Bell's views of dilatable stricture, to try dilatation by means of bougies, with and without the use of caustic; but I did not feel at all satisfied with my success; and having, in turn, become an admirer of Desault's method of dilatation by means of flexible bougies and catheters, I may truly venture to say, that I have had sufficient opportunity for distinguishing between the method of dilatation I now practice, and that recommended by Bell, Desault, and many others. Indeed, so little was I satisfied with my want of success with the old method, that I was strongly urged, several years ago, to devise some mode by which such diseases might be more easily and certainly removed, and such a desire gradually led me to the operation which I have practised upon the urethra. And although my success was truly gratifying, and enabled me to restore all who underwent an operation to at least a comfortable state, still I never lost sight of the objections on the part of patients, which would always exist against an operation, which, though it has never miscarried in my hands, is, nevertheless, one of considerable magnitude, and such as most surgeons would wish to avoid, except in urgent cases. In this frame of mind, I resolved, in a case of dilatable stricture with gleet, to try the use of a smooth sound, and my success was such as to lead me to extend the remedy to other cases, with the aid of other sizes of the same sort of highly polished silver sounds. While pursuing a few experiments in

this way, Dr. Johnson's Medical and Chirurgical Journal fell in my way, and I was not only gratified, but confirmed in my good opinion of this remedy, by learning, in that work, that such a practice was common in London, and was the best plan of treatment in cases of confirmed gleet, &c. Since reading that report, I have much extended my practice in the business of dilatation, and am more and more pleased with the result in cases of dilatable stricture, whether connected or not with gleet, and also in confirmed cases of stricture from thickening of the urethra. A practice which calls for the introduction of the sound, as mine does, from three or four to six or seven times a day, affords ample opportunity for observation, and so far the result has been truly satisfactory.

Confirmed stricture with contraction of the urethra.—This form of stricture is neither so frequent, nor, in general, as painful as contraction with thickening of the walls of the urethra. Many persons affected with this disease, while in other respects in health, do not suffer any very great inconvenience from it. There will generally, however, be an impediment to the discharge of the urine, to more or less extent, and this requiring more force of the detrusor muscles of the bladder, will ultimately throw that viscus into disease. But more especially, if persons thus affected happen to fall into fever or rheumatism, or are overtaken by gonorrhœa or swelling of the urethra, or parts adjacent to the urethra, they are brought into great suffering and danger. And we must not here lose sight of the fact, that while one part of the urethra is contracted and thinned in its walls, another part may be affected with swelling, as in common confirmed stricture; such cases, of course, will be difficult to manage, and will often call for the use of the knife. This form of stricture, I mean simple contraction, was noticed by Brunnerus, which has already been noticed in this paper, and Morgagni has recorded two interesting cases. See Cases 10 and 11, XLII. Mr. C. Bell's second plate affords an interesting case of contraction, extending throughout a large portion of the urethra, with wasting of the corpus spongiosum. Dr. Baillie, in his Morbid Anatomy, tells us that "stricture sometimes consists simply of an approximation of the opposite sides of the canal, so as to form a line of obstruction; at other times, the canal is narrowed for some length. The inner membrane, at the stricture, sometimes exhibits the natural appearance; sometimes it is a little thickened." "It sometimes happens too that the stricture is more on one side of the canal than the other, so that the passage there is crooked." This last applies, however, to stricture *par des brides*, and is noticed

here merely to show how inapplicable to such a case must be the use of caustic, or the lancet-pointed catheter. Is it not highly probable, that by driving on a cutting instrument, we may cut loose a part of the side which stands inwards, forming the crook, and by so cutting it loose, and leaving it still appended to the side of the urethra, we may produce valvular stricture? I need hardly say that I allude here to cases attended, at the time, with inflammation or retention, &c. when speaking of the cutting catheter.

I need not multiply cases to prove the existence of confirmed stricture with wasting of the urethra; those I have quoted are quite sufficient. It is not easy to understand why the same remote and proximate causes should produce different results in different individuals; but that such phenomena exist, is sufficiently obvious, and of this the different results from the exposure to miasmata, noticed in a preceding part of this paper, is sufficient proof. These differences must be dependent upon idiosyncrasies, and this idiosyncrasy, which so modifies certain diseases, may be general or partial, and also permanent or temporary. And hence it is, that the remote cause, which, in one individual, under certain circumstances, will produce swelling of the membrane of the urethra by a deposition of coagulable lymph, may, under other circumstances, from the same remote cause, produce wasting by a more efficient operation of the absorbents of the part. The copious flow of mucous discharges, in one case, from inflammation of the urethra and a dryness far greater than natural, in another case, is strongly confirmatory of the position I have advanced. Nor does this go to invalidate what I have said respecting inflammation and swelling accompanying all strictures in their incipient, or what may be termed their forming state. The changes which lead from the state of swelling of the parts to a wasting of them, is, to a certain extent, a healthy operation, and may be viewed as the result of the *vis medicatrix naturæ*; mostly, however, the parts are left impaired in their structure, and if not actually in a state of disease, at least strongly predisposed to it.

Let us suppose that this disease has become confirmed, and that the contraction extends two or three inches along the canal. Can we venture to cut it with a piercing catheter? can we expect to overcome it by caustic? can we hope to expand the canal by means of Mr. Arnott's apparatus? never! There is here an actual wasting of parts on organic derangement, by diminution; and before it can be overcome by dilatation, the parts must, as it were, grow with the increase of the canal, and therefore, it is only by teaching the patient how to use

the sound, and instructing him to persevere, even for years, that we can expect this disease can be overcome. We have also seen that the urethra, thus contracted, is liable to become ossified, as may be seen by reference to the case of Thomas Williams, in which it had become contracted to the size of a crow-quill, and ossified.

I am decidedly of opinion, that where this form of stricture is fully confirmed and attended by much discharge, irritation, or inflammation, but more especially when we have super-added dangerous inflammation of the bladder, threatening the peritoneum, or with retention, we should not hesitate to open the urethra at once. That the operation is safe I have given ample proof; by it we prevent the formation of fistulæ, the bursting of the urethra from ulceration or mortification, and the fatal termination of the case in inflammation extending to the serous membranes; and in addition, relief from a loathsome disease, attended usually by much anxiety of mind, the restoration of the full powers of virility, and a complete rid-dance from the continual harassing necessity of rising from bed to evacuate the urine innumerable times through the night, are the advantages of this operation.

Stricture from enlargement of the lacunæ.—This form of stricture is so common that it has been noticed by every author. Petit was of the opinion that the suppuration of one of the lacunæ, by rendering the walls of the urethra tender, has often led to the formation of false passages, from the bougie or catheter perforating the tube at this point in awkward or careless attempts in the introduction of them. It seems probable, that it was this form of stricture which led John Bell to make the following erroneous remarks: "As a tumour, which is a wart when growing on the skin, is a pile when growing near the anus, or a polypus when growing in the nose or throat, so that vascular action and thickening of parts, which externally would form a tumour, forms stricture in any hollow tube."—"Stricture is tumour." J. Bell's Surgery, abridged, page 199.

Mr. A. Cooper says, this form of stricture often leads to fistula in perineo. Morgagni saw excrescences about the prostate; he says they were not attached to the gland, but to the sides of the urethra, LXVI. C. Bell says that the inflammation, which attends the enlargement of a lacuna, will most frequently subside and leave the gland indurated, or ulcerated and somewhat enlarged. If situated as low as the perineum, "a small hard body, like a pea or seed within, or rather attached to the canal, may be felt." This form of stricture be-

ing common, no doubt, had a large share in establishing the old opinion respecting caruncles. It is usually attended with a good deal of discharge, and often of a semi-purulent quality. Mr. C. Bell, speaking of an inflamed lacuna, says, "while the inner surface of the lacuna has assumed the suppurative action, the surrounding membrane has become condensed so as to lose its elasticity, and the canal of the urethra is, consequently, incapable of dilatation at that part." Here, then, we see, in introducing the sound, how much this disease, when seated high up, will resemble the valvular stricture, stricture *par des brides*, and an enlargement of a prostatic duct. Fortunately, however, this creates but little practical difficulty, since we may apply the same means of cure with equal propriety and success. The reader will anticipate me in the conclusion here, that we may, in all ordinary cases and in ordinary circumstances, rely upon dilatation; but, on the other hand, in extraordinary cases and in extraordinary circumstances, we may have to resort to the use of the knife, in consequence of the supervention of fistula, bursting of the urethra, a stone in the urethra, violent extending inflammation, &c.

Stricture from enlargement of Cowper's glands.—Stricture does not seem to arise often from disease of these glands, but they have, sometimes, been found inflamed, swelled, indurated, suppurated; and, therefore, we may readily believe that such affections of these glands will lead to irritation, inflammation, swelling, and spasm of the urethra, and thus produce stricture in habits predisposed to such disease. Petit seems to have seen this disease more frequently than other writers; he says that these glands sometimes suppurate and lead to fistula in perineo. Dr. Baillie and other writers say that they are but seldom diseased; I have never seen them unhealthy. In my first essay, I have, in speaking of my operation, advised the division of the triangular ligament. It will, of course, follow, that by cutting the upper or pubic portion, that we will be apt to do some violence to these glands; but they are too unimportant to present any objection to the measure recommended.

It is obvious that any considerable disease of these glands will, when the disease extends to the urethra, produce no peculiarity, but that we shall here, as in affections of the urethra from other causes, have inflammation, discharges, spasm, &c. Exceptions to these remarks would only grow out of a scirrhous, or some considerable enlargement of one or more of these glands. These circumstances would oppose a mechanical and formidable obstruction to the flow of urine, with or without other derangement of the urethral functions. In such a case

we should not hesitate to lay open the urethra, and dissect away the diseased part. I am inclined to believe that we would mostly find the urethra unaffected, and could remove the swelled part without materially injuring it. But, should we even be under the necessity of dissecting away some part of this tube by introducing a flexible catheter and leaving it in till the parts would heal over it, we should obtain a very good urethra. Should the swelling be of a simple phlegmonoid character, we may, with the plan of Desault of keeping in a flexible tube to which is connected a plug to enable the patient to draw off his water occasionally, aided by suitable treatment for effecting resolution or suppuration, prevent, oftentimes, the establishment of a train of symptoms which would otherwise lead to stricture; the reader is, I presume, aware that under such treatment the patient need not be confined, unless the violence of the symptoms should require it.

Stricture from swelling of the prostate gland.—Mr. John Bell, in speaking of paracentesis vesicæ, describes, with his usual eloquence and effect, the affecting spectacle which we are often called to witness in the persons of some of our dearest friends labouring under stricture at the neck of the bladder with retention; his words are: "When, in a man far advanced in years, the prostate gland has been long diseased and has occasioned frequent obstruction, when at last the bougie gives no relief, and the catheter cannot, even with any degree of force or rudeness, be driven into the bladder, the scene is not less affecting; for this swelling of the prostate is a disease almost peculiar to learned and sedentary men, and the patient's age, infirmities, and present sufferings, the dignity with which he supports them, the presence of his family depending, perhaps, on the survivancy of his offices, and the melancholy dispersion of his family which must follow his death, create a strong sympathy; the operation, it is true, is but a temporary resource, yet such a man can bear to linger a little longer, and with his family around him think it happiness."

The untractable nature, and the frequency of this most painful disease, and which is almost peculiar to advanced life, has been so often and ably treated, and still seems so susceptible of improvement, that I shall not be able to do it justice in the present essay; and, indeed, I have here only called it to remembrance with the intention of inquiring how far the operation, which I have practised upon the urethra, is likely to be admissible and beneficial in such cases, with the intention, however, of extending the subject. Unfortunately, as has been observed by John Bell, any operation is too often but a

palliative; the disease, being mostly scirrhus, will not, under such circumstances, yield to any remedy yet known. Does iodine promise any thing?

It is an extraordinary fact, that, notwithstanding the painful nature of this disease, patients suffering all its tortures can sometimes, in old age, bear the introduction of the sound tolerably well, and it is not until there is almost a total obliteration of the urethra at the neck of the bladder that we fail, by dexterity and patience, to pass the catheter. When that totally fails us, I see no reason why we may not open the urethra and divide the sphincters surrounding the urethra, so as to enable us to introduce a tube. It is probable that such violence will occasion a temporary increase of pain, but it may be much controlled for a few days with opium, and such will be the beneficial effects of laying the sphincters thus out of use that we may expect a speedy abatement of pain and general amendment. Having, however, no positive experience in this method of treatment, I shall leave the subject for further experience, but have no hesitation in saying I shall adopt this method should a case present in which puncture of the bladder would be proper, and beg leave to recommend it to the consideration of others. Let me, however, suggest here, that the driving in a cutting catheter, in such circumstances, must be much more hazardous than clean incisions with the knife. Besides, by dividing the sphincters and introducing a large tube, over which the parts will be made to heal, we will, most probably, afford permanent relief. The respite obtained by keeping the sphincters and detrusor muscles quiescent, aided by such treatment as the case may require, will at least prepare the way for wearing an elastic catheter, and thus keep the patient comfortable with a hope, too, that the muscles being no longer so forcibly excited, or having less power to contract upon the urethra, a permanent cure may be effected; whereas, by puncturing the bladder the patient is miserable, and should the urethra wholly close up, which we know now and then happens, how dismal is the contrast with that of preserving the urethra.*

Stricture from Warts within the Urethra.—This form of stricture is comparatively trifling, but nevertheless it is sometimes a very troublesome affection and difficult to remove,

* Should the diseased and swollen state of the prostate gland be of a phlegmonoid kind, or scrofulous, or rheumatic, all of which will sometimes be found to lead to extreme danger and suffering, I should still prefer the method of opening the urethra. I do not believe that this operation would be more dangerous than puncture, and the recovery will be more speedy and perfect.

owing to a disposition to reproduction. Dr. Baillie has not thought this affection of sufficient importance to entitle it to notice, for we can hardly suppose he did not meet with it.

If warts are found high up in the urethra, you will usually find them about the anus and about the termination of the urethra also. If situated high up, we must content ourselves with wearing them down by means of smooth bougies; if within any reasonable distance, an inch or so, we can speedily destroy them by introducing a metallic tube as large as the urethra will admit, having a hole which must be brought in succession over each wart, which will now start into the hole, and may be destroyed by the application of lunar caustic, or Plenck's solution, to that part of the wart which enters the tube; a few repetitions will sometimes be necessary.

It may not be amiss in conclusion, to remark, that it has been my intention in these essays, to show the superiority of dilatation by means of smooth sounds instead of caustic, of common bougies, forcible tearing, according to the method of Mr. Arnott, or the whimsical expedient proposed by Brunnenhausen for dilating the urethra by means of the muscular power of the bladder. And secondly, to advocate the superiority of the method of laying open the urethra, pointed out in my first essay, page 270, over the method of puncture, wherever the latter would be proper, and further, to show that this method of dividing the sphincters will effect generally a permanent cure, while puncture is often palliative only. To show the suitableness of particular remedies or instruments in the cure of strictures of the urethra, it was necessary to pass in review a short examination of the different varieties. This having been in some degree accomplished, there still exists a necessity for pointing out the applicability of particular instruments to particular cases. This requires more room than I can think of occupying at this time. I therefore must postpone further observations till I find it convenient to lay another essay before the profession.

I have only a remark or two to make in anticipation of my next essay. I therein shall endeavour to show the resemblance in certain aggravated cases of confirmed stricture, to cases of fistula in other parts, and from the astonishing effects arising from the division of such fistulous sores, we shall see much reason for expecting similar advantages from incisions through the indurated urethra. Who that has seen the speedy softening down of callous edges of fistulous sores from incisions and laying the muscles out of use, could refuse to believe the assertion founded on my experience, that a similar speedy reso-

lution of an undurated urethra will take place. And hence we have a twofold chance of curing the stricture; by incision we remove spasm, relieve the bladder from action till the parts heal, and we overcome the induration by incision as in fistulous sores in two or three weeks, which by other methods would require months or years, and indeed sometimes could not be cured at all.*

ART. VI. *Case of an extensive Wound of the Neck.* By JOHN WALKER, M.D. of Madison, Georgia.

JOHN F. HODGES, a man of spare habit of body, and much addicted to inebriation, in a fit of mental derangement, inflicted a wound with a razor immediately above the thyroid cartilage, about five inches in length, extending from the one external jugular vein nearly to the other. The incision passed between the thyroid cartilage and os hyoides, extending as far back as the pharynx, separating the epiglottis from the glottis, and also the larynx from the root of the tongue. As the superior thyroidal artery, after quitting the external carotid at the angle of the jaw, passes along the side of the upper part of the trachea, and inclines forwards towards the thyroid gland, it was of course divided; this case is a strong evidence that wounds of that artery do not always prove fatal, as many surgeons have asserted. On discovering the patient, he was found with his head bent backwards, in an approaching state of syncope, from the profuse hæmorrhage, which had now almost ceased. The extremities were cold, and no sensible pulsation at the wrist. From the bent position of his head,

* I shall give in my next some account of my last case of lithotomy, in which my operation was a modification of the method of Vacca; that is, I carried my incision as directed by Cheselden along the left side of the raphe, but influenced by the views of professor Vacca, I only carried the knife as far as the lower edge of the anus; that is, far enough to divide the sphincter ani, by which after deepening the wound through the transverse muscles and levator ani, the muscles seem to be as completely relaxed as if the incision had been carried to the tuber ischii, as directed by J. Bell. The stone removed, a flexible catheter was introduced into the bladder through the penis and left there; this acted as a syphon, the bladder was never brought into action, the wound healed by the first intention, there was no fever nor pain after the first evening, and on the 10th day the patient rode a mile in a carriage, walked half a mile and back again, and from this time never returned to bed. I am aware that Mr. Arnott proposes the use of the flexible tube in such cases, but I did not see his remarks till after I had employed the tube for several years in my operations upon the urethra, and after the application of it to my case of lithotomy.

and elevation of the chest, the trachea and larynx were completely drawn below the upper edge of the sternum ; and the divided ends of the superior thyroïdal artery and its branches had retracted from the edges of the wound so far, as to render it impossible to secure them by ligature. The awful size of the wound, and the apparent symptoms of immediate dissolution, deterred me for a few minutes from doing more than placing him in a position to prevent the effused blood from running into the trachea. While in this situation, Dr. Jones of this place came to my assistance, and we concluded on sewing up the wound, notwithstanding the unfavourableness of appearances. Having armed four pair of curved needles with broad ligatures, I drew the larynx and trachea from under the sternum, and brought the divided ends into correct apposition, after which, I inserted four points of suture by introducing the needles at the bottom of the wound without including any part of the larynx or trachea, and bringing them out upwards of half an inch from the edges. These were supported with strips of adhesive plaster, and posture of the head by means of a cap and straps attached to a circular roller under the axilla. We dressed the wound daily with adhesive strips and compress, confining the chin downwards and forwards towards the sternum.

Inability to swallow continued nearly three weeks, during which time we were obliged to administer nourishment by means of a syringe adapted to a hollow elastic gum bougie. We found it more practicable, however, to introduce the bougie into the œsophagus *per os*, than *per nares*, although the latter method has been generally adopted by surgeons. The wound put on no appearance of healing for the space of sixteen or eighteen days ; but on the contrary, its edges looked pale and flabby, and the mucus from the trachea, and saliva continued to discharge freely from it, although the sutures at this time shewed no disposition to give way. Finding that there was so great a want of inflammatory action in the lips of the wound, as to have prevented them perhaps from ever uniting, we commenced the use of stimulating injections, and in a short time after, granulations began to form, and adhesion took place with rapidity ; and immediately after we were enabled to remove the sutures. A small quantity of saliva continued to ooze from the corner of the wound for a week or two after ; but it has now completely ceased, and the person labours under no other inconvenience than the want of a distinct articulation. From the termination of the above case, I beg leave to submit to you the following remarks :

1. That in order to prevent the insinuation of effused blood into the trachea, an occurrence which Wilmer in his "Cases and Remarks in Surgery," and Lassus in his "Pathologie Chirurgicale," state has often proved fatal, the external wound should not be closed while any oozing of blood continues, so that this fluid may readily find an external outlet instead of falling into the windpipe.

2. That sutures should not be passed through the trachea, nothing having a greater tendency to impede the union of a wound of this part, than the disturbance of a frequent convulsive cough, which they, as extraneous substances, always produce.

3. That sutures, in such cases, should always be inserted at a greater distance from the lips of the wound than is customary, as the failure of a case related by Dr. Colles, Professor of Anatomy and Surgery in the Royal College of Surgeons in Ireland, in his "Treatise on Surgical Anatomy," will satisfactorily demonstrate; although the wound was much less extensive than the one here alluded to.

The incision was made in Professor Colles's case in the same part of the larynx, only two and a half inches in length, which was treated with three sutures, adhesive strips and posture. The man refused to take any nourishment until the second day, when he was capable of swallowing a little milk. The sutures gave way on the *fourth day*, and the wound never put on any appearance of healing; but ulceration extended down along the thyroid cartilage, which soon became bare and carious. Death took place in nine weeks after the infliction of the wound.

4. It may seem strange to some practitioners that hæmorrhage from the superior thyroid artery ceased without the application of ligature, but it is less strange than a case related by Larry in his "Memoirs Chir. Militaire," where an officer received a gunshot wound, which cut the external carotid artery at its separation from the internal, and in its passage through the parotid gland, in which pressure was made by an intelligent soldier at the moment, and subsequent bandages saved the patient. Mr. Hennen also states in his "Observations on Military Surgery," that he knew of an English officer in India saved by the same means from the effect of an arrow wound in the carotid.

5. The plan recommended by some French surgeons of introducing a flexible catheter through one of the nostrils into the larynx and trachea to insure a passage for respiration, and prevent the divided ends of the trachea from being drawn

away from each other, and not corresponding, seems to me to do more injury than good, from the difficulty of introducing them, and the irritation which they would be apt to occasion. The chief indication being to keep the lips of the wound approximated by suture, adhesive straps, compress, and the confinement of the chin downwards and forwards towards the sternum.

6. The introduction of a hollow elastic gum bougie into the œsophagus, seems to me to be accomplished with less difficulty through the mouth than the nostril. Hunter, in his "Transactions for the improvement of Medical and Chirurgical knowledge," mentions a case of paralysis of the œsophagus which occurred in Europe, in which a small fresh eel-skin was passed down that canal by means of a probang, for the purpose of injecting medicine and food into the stomach.

7. I would strongly recommend the introduction of elastic gum bougies or catheters down the œsophagus in all cases of wounds or paralysis of that passage, or the trachea and larynx. It would also be highly advisable in complicated wounds about the face, such as those produced by the discharge of a pistol into the mouth, attended with laceration of the tongue, cheeks and fauces, and in cases of fracture of the upper and lower jaw bones.

REVIEWS.

Quidquid venerit obviam, loquamur
Morosa sine cogitatione.

MARTIAL.

ART. VII. *Transactions of the Association of Fellows and Licentiates of the King and Queen's College of Physicians in Ireland.*—Vol. IV. Dublin, 1824. pp. 452.

WE have lately received from London, the continuation of this valuable series of practical papers, which reflect the highest credit on their authors, and we hope will be acceptable to our readers. The important matter of a volume of four hundred and fifty pages is given in this review. We have preferred the mode of analysis in order to present in as short a space as possible the rich and various abundance of this great series of Essays, which does more to elevate the medical character of the city of Dublin than any effort which the physicians of that city have heretofore made.

A Case in which Pregnancy occurred during the existence of a Tumour in the Cavity of the Uterus, and which (Tumour) was removed after Abortion had taken place about the third month. By JOHN BEATTY, M.D.*

ON the 2d of September, 1820, Dr. B. was consulted by Mrs. W. aged 25 years, "about the state of her womb, with which she conceived there was something seriously wrong. She complained of a swelling, attended with considerable soreness on pressure, at the lower part of the abdomen. This swelling was first observed about May last, and was not permanent, as it was observed always to disappear entirely during the menstrual period; which discharge she reported as having been particularly regular ever since the birth of her child in April, 1819. She said there was no swelling at the time of her consulting me, but was confident it would very soon re-

* Those papers which are not practically useful are not analysed.

turn. And indeed upon a superficial examination, I could not perceive the smallest preternatural fulness any where in the hypogastric region. I saw her again on the 23d, when the tumour was very evident, situated above the pubis, and attended with considerable pain. I wished to have some leeches applied, but she would not consent; and temporary relief of the pain was obtained by applying fomentations, with an anodyne liniment.

On the 28th, the tumour having increased very much, Doctor Clarke was called in; the os tinæ was found dilated to the size of a dollar, and in its opening was a large dense substance of a regular smooth surface, and so connected with the internal surface of the uterus, that no more than the length of the nail of my fore-finger could be introduced between them in the circle. The tumour extended up to near the umbilicus, and was so very irregular in its external surface, as to have the appearance of two unequal tumours when externally examined by the hand.

It appeared to me the most judicious practice, at least in the first instance, to attempt by gentle means to detach the tumour; and this being approved of, I for several days regularly introduced my finger, and endeavoured to separate, by gentle pressure, the connexion between the tumour and uterus. In a few days I succeeded to the extent of the full length of the finger, and without giving any pain, except posteriorly, and to the right side, where I was stopped by what appeared a ligamentous connexion, running upwards, and which appeared very dense to the feel; all the other parts of connexion seemed fibrous, and readily gave way without pain or hæmorrhage. On the 11th of October Dr. Clarke was again called in: no particular change had occurred beyond the daily increasing size of the tumour, which had now reached considerably above the umbilicus, and was much more prominent in front." Gentle exercise was advised so far as to avoid pain. "She continued without any visible alteration until the 10th of November, on which day, while out in her carriage, she was suddenly seized with a moderate discharge of blood from the vagina. I saw her at 5 P. M., and upon examination found the parts within exactly in the same state as they were on the last examination, a month before. She complained of some pain, but nothing of importance; and on being questioned, confessed that she had not felt well for the last few days: she had lost her appetite, was thirsty, had a bad taste in her mouth, and felt in general rather uncomfortable. At 2 the next morning I was again sent for; and, to my utter surprise, found she had

miscarried ; the embryo was entire, the membranes not being ruptured, and the placenta attached to them ; the fœtus was not three months old, as conception must have taken place about the 20th of August, she having regularly menstruated on the 16th of that month, precisely three months after she had first perceived what she called the lump in her womb."

On the 11th of November, as miscarriage had occurred, the extraction of the tumour, for fear of hæmorrhage, was postponed : on the 13th the tumour had descended into the pelvis, and she had suffered considerable pain during the night. On the 14th it was still lower, with increase of pain, but with no inconvenience in passing the urine or fæces. On the 16th it was proposed to extract it by introducing the forceps, but as there had been considerable irritation of the parts from examination, it was postponed, and on the 17th the tumour gradually descending, by 11 o'clock at night it was expelled by the regular efforts of the uterus, but remained partially attached. At 12 o'clock it was removed with little flooding, no weakness or fainting. It weighed nearly 4 pounds, and resembled a placenta in appearance and texture. In three weeks she was perfectly well, and has since had a healthy child.

Sir THOMAS MORIARTY on Phthisis from Hepatic Derangement.

This case exhibited ordinary symptoms of disease of the lungs arising from the state of the liver, with some complications, one of which is interesting. About midnight the patient was found with his mouth gaping, the lower jaw hanging apparently dislocated on the sternum, with sudden agitations against the upper one communicating tremulous motions to the whole bed. The gaping posture continued for some minutes, and presented to the eye the appearance of dislocation, and was removed by pressure on that branch of the fifth pair of nerves which passes through the foramen at the chin, made by tying over it a silver coin, which was kept on by a bandage : It succeeded frequently, and after liniments composed of ether, laudanum, camphorated spirits and turpentine were tried unsuccessfully. These spasms, we would observe, often occur after amputation, operations on the teeth, extensive wounds, the irritation of the growth of the toe nail into the flesh, and excite great alarm in the practitioner ; they however go off without any bad consequences. In the latter case they consist of simple nervous twitches, repeated suddenly when the patient attempts to move the part on which the wound was inflicted.

In the next paper Dr. Beatty gives a case of ascites in a child

aged 4 years, who was cured by the *pyrola umbellata* prepared by infusing one drachm of the plant in a pint of boiling water for an hour, half a pint to be strained off, and two table-spoonfuls to be given every four hours during the day. The effect was immediate, and the child soon recovered.

DR. BEATTY on a species of Premature Labour.

These remarks originated with the perusal of a paper written by an experienced physican, on a not unfrequent species of premature labour which takes place about the 7th or 8th month; the motions of the child cease, and in about 10 or 14 days after a dead fœtus is delivered. We give the cases in his own words.

“The subject of the above communication attracted my attention, when very young in the profession, and has continued to do so ever since. So early as the year 1789, when I was resident assistant at the Dublin Lying-in Hospital, I delivered a woman in Great Britain-street of a putrid child, in the eighth month of pregnancy, which, she told me, had been the case with several children that she had had before, and that she despaired of having living issue.

I inquired very particularly into the state of health of both parents, and suspecting venereal taint to be the cause, I proposed to them the use of mercury and separate beds, until I should be satisfied with the quantity of mercury used. They readily complied with the proposal, and the result was a living boy in due time, after the mercury had been discontinued; and their happiness at the event may be more readily supposed than described, as they were both at the time pretty far advanced in life, and never had another child.”

He then goes on to state that several other cases occurred to him, but he more particularly calls the attention of the reader to some others in which he was assisted by his brother practitioners.

“In my case book, to which I have referred, I find that in August, 1812, I attended the wife of a staymaker, who was delivered of a putrid child in the seventh or eighth month, which, she said, was the third that she had born dead. I discovered so much of venereal affection, as to recommend that they should put themselves under the care of some experienced surgeon for the use of mercury. They applied to Mr. Colles; and when she was pregnant in the following year, Mr. Colles told me that they had not continued a sufficient time

under his directions to satisfy him that they were cured of the venereal complaint; which I found to be the case in July, 1813, when I delivered her again of a putrid child in the eighth month. I then declared that I never would attend her again, until Mr. Colles told me that he was satisfied with the result of the mercury used. They again returned to him, and fully attending to his directions, in October, 1814, I attended her, when she bore a living girl at the full period of gestation. She has had several living children since.

In October, 1816, I delivered the wife of a cavalry officer of a putrid child in the eighth month. The gentleman had been on the continent with his regiment without his wife, and had contracted a slight venereal complaint, of which his surgeon considered him well before his wife joined him in France. I could not detect any venereal symptom in the parents, but was so satisfied with the cause of the child's death, from the peculiar appearances on the body, that I recommended them to consult some eminent surgeon; and Mr. Todd was called in, who met the regimental surgeon with me, and advised the use of mercury, which was regularly persevered in by both for several weeks. After this course pregnancy was soon the result, and in November, 1817, I had the gratification of attending her when she had a living girl. She has had several living children since.

A nurse who had contracted venereal disease by suckling the child of a general officer, and was supposed to be cured, had two dead putrid children in the seventh or eighth month. I requested Mr. Todd to see her, and take her under his care, which he did, and the poor woman has had several healthy children since.

In April, 1818, I attended a very fine healthy-looking woman, of her first child, which was born in the eighth month, dead and putrid. This, I hoped, was from some accidental cause, particularly as she said that she had received a fright some time before. However, in June, 1819, she again lay in in the eighth month of a dead venereal child; and I recommended that she should see some surgeon, as her husband now confessed that he had been disordered before marriage. Mr. Todd saw her, and took both under his care until he was satisfied with the use of mercury. She lay in in September, 1820, of a living boy.

I never attended any person who had dead children, that I suspected of venereal complaints, who did not readily submit to mercury, so strong and general is the desire for posterity, except a celebrated courtesan who lived for several years with

a friend of mine, and every year produced a putrid child. As she was very comely in her person, of which she was supposed to be liberal to many, and did not wish for living offspring, she never would use mercury. It was remarkable of this lady that she frequently disordered men, but never my friend except in the first connection."

With regard to the remedy to prevent the death of the fœtus in utero, he states that instead of sulphureous mineral waters, goat's whey, tepid bathing, decoction of sarsaparilla, or blood-letting, as generally practised, he would recommend the use of mercury. He then subjoins an important fact on the use of confinement during pregnancy.

"I have met with several cases wherein very delicate women have borne dead children at the seventh month but not putrid; and have, where I did not suspect venereal taint, constantly succeeded in avoiding the accident by a rigid confinement, even to one floor, and by a very strict attention to keep the bowels gently free, from the earliest period of gestation to the end of the eighth month; and several, to whom I gave permission to go out at that time, have thanked me, saying they were never so happy as in their confinement, and would not accept of my offered emancipation. I do not remember a single instance where good health, good looks, and a continuation of bearing living children, were not the rewards of the confinement."

DR. BEATTY'S case of Affection of the Head threatening Hydrocephalus.

A child aged ten years and a half was seized on the 7th of October, with strabismus, spasms of the muscles of the face, trunk and extremities, with fever in the evening: V. S. local and general, to the extent of $\frac{3}{5}$ of blood in three weeks with purgatives, 120 grs. of calomel, and $\frac{3}{4}$ of mercurial ointment perfectly cured her.

Six other successful cases are related in which V. S. was considered as the principal remedy.

Cases of Hæmatemesis, cured by Emetics of Ipecacuan. By EDW. SHERIDAN, M.D. &c.

Fifty years ago this remedy was used by the father of Dr. Sheridan in hæmatemesis; after witnessing several fatal cases of the disease, he was induced to try it, and with the greatest

success. As this disease was successfully treated in five cases, two of them are given to exhibit the treatment.

“The subject of the first case was Jane Halpen, a young unmarried woman, between twenty and thirty years of age. She complained of great oppression and pain about the præcordia, attended with violent palpitations: she had taken some saline purges, with little or no benefit. When I first saw her, I found a great discharge of dark-coloured blood. I had recourse to the usual remedies, but did not venture on the lancet, as her pulse was weak and low, and there appeared no activity in the arterial system. She threw up no more blood on that day or the next, but the oppression continued, accompanied by nausea, and there was no sign of returning health. On the third day the vomiting of blood came on again, and the discharges of blood were as great as before, with an increase of debility. As the vomiting had ceased before I arrived, I thought that so great a discharge of blood might probably have entirely removed the local congestion which appeared to be the cause of the disorder, and therefore abstained from administering the ipecacuan. She passed that day and the next without any return of vomiting; but on the day after, it came on with greater violence than ever. I was sent for, and, when I arrived, I saw discharged an immense quantity of blood. I do not exaggerate when I say it amounted to several quarts, partly grumous, and partly fluid, dark and venous as before. Her strength was now exhausted, her pulse scarcely perceptible, and the throwing up of blood still continued. She looked ghastly, and I could not doubt that if the hæmatemesis continued longer, it would soon terminate her existence. I ordered thirty grains of ipecacuan to be taken immediately. The vomiting, at first, ceased for some minutes, but then re-commenced, and she threw up a quantity of clotted and fluid blood, the last of which was mixed with mucus. After this the vomiting entirely ceased, but she lay in an alarming state of debility. She appeared pale and wan, her respiration and pulse could hardly be perceived, and her animal heat was almost gone. I directed warm flannels to be applied to her extremities, with the lightest nutriments and cordials to be repeatedly given in the smallest quantities. She began to acquire a little strength in a few days, but soon after there came on anasarca and ascites in a considerable degree, which at first seemed to me very alarming. Those symptoms, however, in a short time gave way to the use of aperients and diuretics, and she was soon perfectly recovered.

"The second case was that of Mr. Turpin, a builder, on Summer-hill. He was much exposed to cold and wet in his business, and for the last eight or ten years did not enjoy good health. He was subject to pain across the præcordia, which was sometimes so violent, that, to use his own expression, he was obliged to twist about in his bed like an eel. Whatever food he took generally caused a sensation of pain or soreness in his stomach. He sometimes vomited, and laboured under symptoms of pyrosis. His bowels were generally too free. He took a variety of medicines, some of which alleviated his complaints without removing them. At length, on the 24th of last December, about nine o'clock in the morning, after much of the usual severe pains, great oppression, and palpitation of the heart, he threw up more than a pint of coagulated dark blood; shortly after he vomited some ounces of fluid dark blood. I saw him at one o'clock, and found him labouring under great oppression, and considerable palpitation of the heart, but the pain across the præcordia was not very severe: his pulse was weak and low, but not very quick. I ordered the ipecacuan emetic to be taken immediately, and left such directions as I thought proper: soon after, and before the messenger had returned from the apothecary's, the symptoms increased, the pain across the præcordia became intense, and he vomited a vast quantity of grumous dark blood. I saw it next morning, and think that it must have amounted to more than three quarts. A great increase of debility ensued, but no alleviation of the symptoms: in this state he took the ipecacuan. It rested for some minutes on his stomach, and then operated in three or four fits of vomiting, by which he threw up more than a pint of the same kind of blood. Here all the symptoms subsided: he found himself perfectly relieved: heat was gradually diffused over his whole surface, which had been cold before. He fell asleep: a gentle perspiration ensued, which continued a good part of the next day: his pulse became full, soft, and regular, and he felt himself, he said, more free from pain, oppression, or sickness, than he had been for years before. On the day after I gave him a mercurial purge, which brought away a great quantity of such matter as he had vomited, with this difference, that it was blacker, and resembled the discharges in melæna. He continued to improve, but was still weak: in this state, contrary to the most positive injunctions, he made too free, and the pain across the præcordia, the oppression, &c. returned. Under these circumstances I did not hesitate to repeat the ipecacuan: all these symptoms vanished, and he since continues to improve."

On Tinea. By JOHN CRAMPTON, M.D.

The experience of the author in this disease is the result of attention to twenty-eight cases, from the lowest classes of society, mostly neglected in infancy, many of them scrophulous, and some of them deformed. Their habits were sedentary and their constitutions generally impaired. They slept in close rooms and had a full and gross diet, which the author, as well as several distinguished men on the continent, believe to be a fruitful cause of this complaint.

"The appearances in those who were affected varied according to the duration of the complaint, as well as to the constitution of the individual. Perhaps there might be a discrepancy in the symptoms, from an original difference in the texture first engaged in the disease, and that there might be some foundation for dividing tinea into the several species which Sauvages, Willan, Bateman, and Alibert, have attempted to establish.

In some of the children clusters of minute, oozing, red prominences, were observed in spots through the hairy scalp; many of these had advanced to suppuration, leaving pits, or hollows, filled with pus, giving a honey-combed appearance, covered over here and there with a whitish or yellow scab. Such an affection corresponds with the *Tinea Favosa* of Sauvages,* Alibert,† Willan and Bateman.‡ In many, large patches of scab, of a definite shape, constituting the *Porrigo Scutulata* of Willan and Bateman,§ occupied portions of the scalp, and was matted in the hair, short as it was always kept with these children. In some instances, one large crust covered the entire head, like a close cap, corresponding with the *Tinea Crustacea*|| of Sauvages. Again, a glued condition of the hair may be considered to bear some analogy to the *Tinea Granulata*¶ of Alibert. In other instances, the cranial teguments showed a scaly appearance, with only a few scattered hairs here and there, the colour of the scales varying from white to brown. The scales, with some children, were firmly attached to the skin of the head, in others, they fell off like bran. Nosologists might arrange these appearances under the *Tinea Furfuracea*,** and the *Tinea Asbestina*.†† A few presented a completely bald head, or state of *Alopecia*, emulating the appearance of premature old age, corresponding with the

* Sauvages, Sp. 3.

† Alibert, Sp. 1.

‡ Willan and Bateman, Sp. 6.

§ Willan and Bateman, Sp. 4.

|| Sauvages, Sp. 7.

¶ Alibert, Sp. 2.

** Sauvages, Sp. 6. Alibert, Sp. 3.

†† Alibert, Sp. 4.

*Porrigo Decalyans** of Willan and Bateman. In general, the scaly variety was most discernible amongst scrophulous children, many of whom had considerable enlargements of the glands of the neck, and some in a state of suppuration. The disease was observed amongst the full plethoric and robust, as well as with the pale and emaciated tabid-looking subjects, whose bellies were large, and where mesenteric disease was suspected. A fanciful and minute observer might have, perhaps, discovered further varieties in the symptoms corresponding with the other species of *Porrigo*, or *Tinea*, established by the writers already mentioned, and others who have treated on cutaneous diseases; but the appearances just now related were those which were observed by the writer of this paper. It should have been mentioned, that the ages of these twenty-eight children ranged from six to fourteen. The disgusting complication of pediculi amongst the scabs, related by the writers on *Tinea*, was not observed, it is supposed because the practice was to keep the hair short, and probably because some preparatory cleansing process was put in practice before the physician saw the patient."

The removal of the hair, by the razor or the scissors, of the crusts and scales, by soap and water or an oatmeal poultice, were the first means used. Ointments composed of the different oxyds of mercury, lead, and zinc, the tar ointment, that of black pepper, of sulphur, all produced no permanent good effect. The lotions composed of the different metallic salts and lime water were also only of temporary benefit.†

"This latter, in combination with oil, in some instances, was more promising; powdered charcoal was also tried. A strong ointment, made with sulphuric acid and lard, in the proportion of a drachm of the former to an ounce of the latter, soon changed the aspect of the diseased surfaces, but still, after a little time, the morbid secretion recurred, and the scabs or scales were renewed. This ointment was attended with the inconvenience of corroding the night-caps and bed-linen; still, painful as its application was, the elder boys used to ask for it, it removed the itching so completely for a considerable time."

Constitutional treatment accidentally resorted to, in consequence of fever, discovered the importance of purgatives and

* Willan and Bateman, Sp. 5.

† The water through which the gas procured from coal has been transmitted, has lately been found an active and useful lotion.

venesection. Saline cathartics were accordingly given every second or third day to all the children, with the happiest effect.

"It was further observed, that the scrophulous children with large bellies, and other descriptions of patients where rhubarb and other tonic purgatives were exhibited, in addition to an amended state of general health, seemed to improve, as to the local disease, with more celerity than otherwise healthy children where topicals only were employed.

Another expedient which had been adopted also, with views originally unconnected with the treatment of Tinea, I found showed a considerable share of power in advancing the cure. Warm baths had been directed for several inmates of these wards, when the skin was observed to be harsh and dirty, also for those who were convalescent from feverish attacks; in addition to an ameliorated state of the skin in general, and of the cutaneous secretion, the appearance of the scalp was palpably and materially improved in those who took these baths.

I had thus, after some time, learned from experience to appreciate the advantage of constitutional treatment, and to trust less to topicals; I discarded therefore the variety hitherto in use, and confined myself chiefly to simple poultices, aided by a constant use of purgatives and the tepid bath. A certain number of the children were bathed every evening in turn, so that each of them had a bath every third or fourth evening.

The treatment which I finally adopted was, first to use poultices, giving cathartics every second morning, and the bath every third evening; during the time the poultices were discontinued, the liniment with lime-water and oil was applied.

When the common oatmeal poultice was not sufficiently strong to remove the crusts, one was constructed with soap reduced to a stiff jelly; the common brown soft soap answered best. In some instances soap and oatmeal, half boiled, were mixed. The soap poultice was productive of rapid amendment; it very quickly dissolved and removed all hardened, lymph, and other morbid secretions; it was considered by the patients a very drawing and rather a severe application, as it occasioned some irritation and smarting; but it was readily adopted, its efficacy was so soon and so incontestibly evinced. It was equally plain, however, that this powerful topical was as apt to fail eventually as the others, except the general internal and external treatment already explained was practised at the same time.

After the soap poultice had been applied for a few days, it was exchanged for a common one, and this was continued

daily, as long as any morbid appearance remained on the scalp. Ultimately the lime-water liniment seemed to keep the teguments of the head soft, to prove healing, and to encourage the growth of the hair.

Mr. Plumbe advocates the expediency of extracting the hairs with a forceps, where suppuration has taken place about their roots; he considers it quite impracticable to succeed without this step. This, in any of the twenty-eight cases under my care, appeared unnecessary; the poultices removed all collections of matter, whether superficial or deep-seated, and allowed the cranial teguments to regain their healthy condition; the growth of the hair was then renewed, except in the instance of two boys who had the *Porrigi Decalvans*,* or complete Alopecia. In them all traces of the disease was removed, except the baldness. It would be curious to ascertain whether a further extension of the method of cure resorted to might not in time remove this deformity."

In addition to these means, attention to keeping the feet dry and warm in cold weather, proper clothing, cleanliness, and wholesome diet should be strictly enforced.

A case of Conversion of Disease. By JOHN CRAMPTON, M.D.

In this case the ordinary symptoms of rheumatism appeared; pain in the wrists, elbows, knees, with a natural pulse. Relief was afforded by attending to the state of the skin and digestive organs, by mild diaphoretics, mercurials, and tepid baths; the health improved, and the swelling of the knees only remained; leeches, and finally the ointment of tartarized antimony were prescribed, but without any change; a blister was applied to one knee, when suddenly the disease disappeared from both knees, and the glands of the axilla became enlarged with inflammation, extending to the elbow, of an erysipelatous character, with delirium, small, rapid, and weak pulse. This disease was opposed by extensively depleting means; suppuration took place, when the patient, in two weeks, was on the recovery. Another disease, however, appeared.

"This attack consisted in a painful state of the whole tract of the intestines, with frequent liquid and bloody discharges; there was every reason now to suppose the mucous coats of the bowels were inflamed. In a subject so reduced, a very active treatment was not admissible. The inflammatory tendency, however, was met by leeches to the abdomen on the

* Willan and Bateman, Sp. 5.

19th, to the anus on the 21st, by castor-oil, and an anodyne absorbent mixture. The pain was mitigated, but the diarrhœa continued : it was kept in check by anodynes and slight cordials, interposing occasionally a mild aperient, and by opiate clysters. Cordials, with æther, and an allowance of wine daily, were prescribed ; also balsam of copaiva, with opium ; but these, and other medicines resorted to, proved equally inefficient.

It was evident, except some energetic plan could be devised, I should lose my patient ; accordingly, on the 30th of December, I directed superacetate of lead, with opium, according to Dr. Latham's* plan, a pill with one grain of the superacetate, and half a grain of opium, to be taken three times in the day. In some respects this treatment seemed to succeed ; but the form of his disease, in which the remedy was perhaps once more instrumental, was again changed for the fourth time."

Ascites with great pain and distention of the belly now became discernible ; as the patient had lost his strength, energetic means were regarded as dangerous ; the peritoneum was evidently inflamed. The former remedies were then omitted, and the digitalis was directed ; on the 8th a warm bath ; a large blister on the following day was applied to the belly, the diuretic being continued with chalk and opium.

" On the 10th some wine was considered indispensable, on account of his exhausted state. From this until the 19th there was little change ; on this day a recurrence of the pain in the abdomen, with considerable severity took place ; for this leeches were applied, followed by poultices, which latter were kept to the painful region for a week in succession. Thus, ultimately, inflammation appeared to be subdued and exhausted.

Under the treatment pursued, by the first of Feb. the bowel complaint had ceased, the dropsy had disappeared, his strength and appetite gradually returned, and, in about a fortnight, I had the satisfaction to discharge him completely cured, and able to undertake a journey on foot to the North of Ireland.

This case may be considered as an instance of that peculiar delicacy of constitution we often meet with in practice, where several organs are successively attacked with disease. Whether a scrophulous diathesis or other predisposition lays the foundation for such occurrences, it is not easy to say ; but in the physician's intercourse with patients in the higher circles of society, often amongst females, when one disorder is nearly

* Med. Trans. Coll. Phys. Lond. vol. v.

subdued, some new morbid train of symptoms arises. I recollect a case in an interesting female, where a smart pulmonary attack first claimed attention; on the subsidence of this, an hepatic inflammatory disease ensued; in succession a nephritic one. When relieved in one quarter, the same morbid circle of disease was renewed, so that it was nearly impossible to restore her to health. With such a description of patients, moral causes have also their influence, and must be taken into account by the physician."

Case of separation of the Ossa Pubis after Delivery. By ALEXANDER JAFFRAY NICHOLSON, M.D.

It appears from the extensive observations of the most eminent accoucheurs in Paris, Vienna, and Dublin, that this disease is of rare occurrence. In the case, the subject of this paper, the woman after a natural delivery, did well to the fourth day, when she complained of an inability of moving her limbs.

"On making enquiry, she informed me, that, while at the fire, she felt sick, and fell off the low seat on which she was sitting. The nurse-tender had left her, and when she returned she found her fainting on the floor. When she recovered she was quite unable to afford herself any assistance.

In the course of the fifth day she was seized with frequent rigors, so violent as to shake the entire bed; and she complained of excruciating pain at the edge of the os pubis, and along the course of the left thigh. The fainting and rigors returned to such an excess, that I found it necessary to remain with her. Wine, and other stimulants, were given, which soon alleviated these distressing symptoms. Her stomach, however, was at times much disturbed; and she was tormented with noise in her ears, and constant sneezing, which greatly aggravated the pain at the pelvis.

To relieve these unpleasant sensations, she took the black drop in large doses, which agreed extremely well with her. I at first tried opium, but it caused very unpleasant sensations whenever she closed her eyes, and kept her in a constant state of terror."

On putting the finger over the symphysis at its edge crepitation was distinctly perceived; a tumour was also observed on each side of the sacrum, on examining it particularly: the tumour was hard and circumscribed, and about the size of a hazle nut.

"Whenever she was moved, the pain was so agonizing, that, she said, they must be tearing her asunder. I communicated to the family my opinion, that the ossa pubis had separated, and requested a consultation. In the mean time I desired her to be kept strictly in a state of rest, and applied a broad firm bandage round the pelvis, from which she experienced the greatest relief, and found herself more comfortable than since her confinement. A solution of muriate of ammonia was applied to the tumours on the sacrum: they did not cause any considerable inconvenience, and were soon removed.

For nearly six weeks she remained perfectly well in her health, and easy in her bed, except when she attempted to move, or to turn on either side, on which occasion she always suffered the most violent pain. She could stretch her feet downwards, but could not draw them up again. She found relief from leaning forwards, and placing her elbows on her knees; and when that position became irksome, she returned to her usual one on her back, where she always felt easy. About this time she menstruated, and though much benefit was expected from this circumstance, yet no alteration took place in her complaint.

A gentleman of considerable experience in midwifery (Dr. Beatty) saw her in about ten weeks from her confinement; and, after a very careful examination, we found the internal parts in their natural situation, and free from disease. The perinæum was not lacerated, nor was there the least appearance of injury about the external parts; but on considering the seat of the pain, and the inability of moving her limbs, there could be no doubt that the symphyses of the ossa pubis had separated. The broad bandage was continued, with cold applications to the seat of the pain. A bandage, to keep the knees together, was also suggested by Dr. Beatty, and adopted."

In the course of conversation, after it had continued for five months, the circumstances were mentioned to a medical friend, who stated that he had a case somewhat similar, though more aggravated, a few years before.

In that instance it appeared that "for several days before labour came on, she suffered much from pain and weakness in her back, and a total inability of moving herself, which caused her labour to be unusually severe, as she was unable to render herself any assistance. A crackling noise could be distinctly heard at several yards distance, and not only were the pelvis

and sacrum separated, but the disease seemed to have extended to the functions of all the bones of the pelvis.

Many medical men of eminence were consulted, and a variety of medicines were exhibited. Bark, wine, muriate of lime, carbonate of iron, tincture of iron, and every other remedy that could be thought of. At the end of seven months, no improvement whatever having taken place, and her situation being truly deplorable, he determined on using the shower bath, the good effects of which were soon apparent; for in a few weeks, she was able to walk on crutches about the room, and in two months to go up stairs, which, to a person so affected, was an operation of no little difficulty. In three months she was fully restored to the use of her limbs, and has had since a living child, after a tedious but natural labour.

I immediately communicated the result of this case to my patient, who agreed to do willingly whatever I proposed. A partial shower-bath was contrived, and before the expiration of a month, not only great relief from pain, but much benefit, was experienced, for she was once more able to pull on her stockings, and draw up her feet.

About two months afterwards she expressed a great inclination to try to walk, which I have often since regretted was not agreed to. She continued, however, free from pain, and in good health, until December, (just twelve months from her confinement,) when, contrary to my wish and opinion, she was moved to her husband's house, as she had been confined at her father's.

She was put into a chaise, and whether from the motion of the carriage, or the confined posture she was obliged to be in during two hours, I cannot say, but all the unpleasant symptoms returned, accompanied with great pain, and the crackling of the pubis.

At this period I gave up my attendance, as I did not approve of the proceeding. She was put under the care of another practitioner, who, I understand, employed counter-extension, to keep, as he termed it, 'the opposite sides of the pelvis in apposition.' This was contrived by keeping her upper and lower extremities fastened to the bed-post; but it caused such pain, that she refused to endure it any longer: and matters having become much worse, I was requested to renew my attendance. I found her quite resigned to her situation, but without any hopes of recovery, to which she had so patiently looked forward. I persuaded her to return to the constant use of the shower-bath and belt, both of which had been much neglected.

I visited her at easter, and staid two days with her; and was satisfied, from close observation, that she was in a fair way of recovery. She was playing with her child on the bed, and she turned herself in various directions without making any complaint; and her sister, who slept with her, told me that she often turned on her side in her sleep, without experiencing any bad effect next morning. I contrived a little carriage for her, in which she could lie lengthways, and which was easily wheeled about the garden. The delightful sensation she experienced on once more breathing the fresh air, after being confined nearly eighteen months, may be readily conceived. A pair of crutches were procured, and directions given, if she should have any inclination to stand or walk, to allow her to make a trial.

I had a letter from her about a month ago, in which she gave me the pleasing intelligence, that she had either walked, or shuffled, half across the room, and felt no pain from the exertion; and every subsequent account confirms the pleasing prospect of her complete recovery."

Case of fatal result from Mercurial Ointment. By J. CRAMPTON. M.D.

This case was ascites and anasarca, treated by cathartic and diuretic medicines without effect. He was salivated and seized with difficulty of breathing, which disappeared on removal to a pure air, and died apoplectic, after a sudden disappearance of the discharge from the mouth and the swelling of the abdomen. On dissection the dropsical effusion it appeared was entirely gone; the brain, thorax, and viscera of the abdomen, were healthy, with the exception of the mucous membrane of the intestines, which, "more particularly the ileum, was of a bluish green colour, ulcerated in many parts, or rather appearing as if corroded by some active chemical substance. This was not observed in the large intestines, but green-coloured fæces adhered to the inner surface of the intestinal canal.

On reviewing the appearances after death, and comparing them with the symptoms, the first remark which occurs is the uncertainty of medical prognosis. Antecedent to death, almost any physician of experience would have pronounced the disease apoplexy of the metastatic kind; that serous effusion took place suddenly on the disappearance of dropsy from other cavities; or that rupture and extravasation of blood occurred from the new determination excited by the mercurial irritation. Of such occurrences, in dropsical diseases I have seen several instances, where the appearances just described, of

effusion, &c. were found in the brain on examination after death. Such sudden transitions have, according to my experience, happened oftener where mercury was early employed, than under any other modes of treatment. I have not observed such sudden fatal metastases since I have been in the habit of using the lancet, and other modes of sanguine depletion, in recent cases of dropsy:* after the removal of inflammatory symptoms, mercury here, as in other diseases, is safer and more likely to achieve what the practitioner may desire."

The author then goes on to state it as his opinion, "that where mercury proves poisonous, it does so not only by its mechanical or chemical effects on the organs of digestion, but, like other poisons, it acts on the brain. We know this is the fact with respect to many of the narcotic vegetables; the same also is admitted to be the case with some of the metallic substances, when they are destructive of life. Arsenic, and other mineral poisons, destroy life long before the local injuries are sufficient to accomplish this purpose, as appears from the experiments and observations of Orfila.†

In Jones's case the symptoms were perplexing; the local affection of the glands and throat very properly claimed attention, because patients have often died from gangrene in these parts, or from inflammation extending to the larynx or trachea.

There was no reason at the time to suspect any intestinal inflammation, the patient being free from pain, more especially as the bowels were so easily kept in a regular state."

The author then states a case analogous to the one related, in which from the mercurial irritation the mouth and glands were considerably swelled and inflamed, with much fever, great distress and anxiety, irritation, delirium, redness of the eyes and rapid pulse.

"After two bleedings, leeches were applied to the abdomen, which was tender to the touch, but which symptom might have escaped observation, had not my attention been directed to that quarter by the case before us. Under this mode of treatment the patient recovered, although his mental faculties were not fully restored for a considerable time after. Had not the local tendency of the mercurial medicine been thus arrested, it is possible the case might have run the same career as that which is the subject of this paper.

* Vid. Clinical Report on Dropsies, by J. Crampton, M.D. vol. ii. Trans. Assoc. Coll. Phys. Dub.

† Orfila, vol. i. p. 115.

He then makes some valuable observations on the *eczema mercuriale*.

"This disease was described by Mr. John Pearson,* surgeon to the London Lock Hospital, under the name of *Ecze-ma Mercuriale*. He first gave an account of the disease, and the mode of treatment in his lectures, in the year 1783; he afterwards published a work in which he fully describes it.† Mr. P. met with no fatal cases in the eruptive form; but according to my experience, when death takes place at an early stage, it is from affection of the brain, delirium, and coma, having preceded dissolution. If the disorder runs a protracted course, a hectic state occurs either from disease of the lungs‡ or of the bowels, the patient sinking under a colliquative diarrhœa—the latter occurrence is more frequent.

It is probable therefore that the eruption on the skin may not be unconnected with a poisonous influence on the mucous coats of the intestines, which became excited, inflamed and ultimately ulcerated and eroded, as in the last stages of dysentery."

To prevent diseases which arise from mercury, a slow and cautious administration of the medicine, he considers as the principal object. And when symptoms supervene, as in the subject of this paper, he recommends remedies to counteract intestinal inflammation and the disordered state of the brain.

"Removal to an airy room, or the admission of fresh air, on the plan recommended by Mr. Pearson, may also be practised with eventual benefit, taking care not to arrest ptyalism too suddenly. The patient, in fact, should breathe a cool respirable atmosphere, whilst he is well protected from cold, lest any sudden check of the cutaneous transpiration might hazard an enteric attack, such as is known to arise from cold externally applied, or cold drink taken whilst the body is heated, even although no mercurial medicine has been administered.

If the form of mercurial disease we have to contend with be the *eczema mercuriale*, Mr. Pearson recommends antimonials at an early period, afterwards saline draughts and aceta-

* Pearson, p. 166.

† Sir G. Alley published in 1804 an essay on a peculiar eruptive disease from mercury. Sir T. Moriarty subsequently published on the same subject. They both had the honour of knighthood conferred on them for their respective publications. Neither of them seem aware that Mr. Pearson had described the disease in his lectures from the year 1783 to 1807, when he published his observations.

‡ Alley, p. 48.

ted ammonii, with attention to the state of the bowels. In more advanced stages opiates and the warm bath, to allay irritation; and ultimately sarsaparilla, cinchona, and mineral acids: externally he prefers litharge plaister with cerate to any other dressing.

The treatment proposed by Sir G. Alley and Sir T. Moriarty scarcely differs from that adopted by Mr. Pearson. Mr. Pearson, in his extensive practice, never met with a fatal case: one of nine cases related by Sir. G. Alley (from the Lock Hospital) terminated in death; the symptoms having come on with severe pulmonic affection, the patient sunk exhausted by a purulent discharge from the skin, and a rapidly increasing hectic state.

I have seen some fatal cases of this disorder in the Dublin hospitals. A few have died at early periods from affection of the brain, others from failure in the lungs, a severe bronchial affection generally supervening; most of them sink under colliquative diarrhœa. I am disposed then to conclude, that in this form of mercurial disease, as well as in Jones's case, symptoms of inflammation might be detected at the early stages, and met by an appropriate treatment. General and local detractions of blood, in addition to Mr. Pearson's judicious mode of treatment, might anticipate inflammatory affections in the mucous system of the lungs and bowels, which end in disorganization of these membranes, and might prevent these determinations to the brain which overpower that organ; the time, however, for this practice quickly passes away, and a state of collapse soon succeeds those early symptoms. As to local treatment, I have found, in addition to tepid bathing, the lime water liniment, and sponging with spirit and water, allay irritation better than any other topical applications."*

Case of Chorea. By JOHN CRAMPTON, M.D.

This case of chorea occurred in a woman aged 42, who had about sixteen months before been affected with hysteria; this disease disappeared, and in about four months previous, was succeeded by chorea, which was relieved by the nitrate of silver in the dose of three quarters of a grain thrice a day, and during the paroxysm a fœtid enema which (fœtid enema) for the time relieved the paroxysm. The bowels were kept

* For the notes of this and of the next case I am indebted to Mr. Henry Fulton, clinical clerk to the physicians of the House of Industry, who collected many interesting facts relating to the patients, which otherwise would have been overlooked.

open, and the medicine was increased to two grains thrice a day, and in one month and eight days was discharged cured.

The author states that "a very severe case of Chorea, for which I was consulted, occurred in a boy of ten years old, whom I saw but twice. He had tried purgatives, vomits, tonics, and the other remedies usually ordered, besides other modes of relief suggested by different practitioners in the country: headach was the prominent symptom. I directed leeches to the temples, neck, and along the spine, in succession, at the interval of a few days, shaving the head, using the tepid shower-bath, made gradually quite cold. These measures, with a proper attention to the state of the bowels, in the course of a few months restored him to health."

Cases of Disease of the Bladder, treated with buchu leaves. By
EPHRAIM M'DOWELL, M.D.

Mismanaged gonorrhœa, neglected retention of urine, diseases of the prostate gland, strictured urethra or calculous affections, frequently produce in the mucous membrane of the bladder chronic inflammation, which is attended with much misery. It also proceeds from causes which are unknown.

"In many cases, as for example, when it depends on diseases of the prostate gland, we can do little more than palliate urgent symptoms; in other instances much may be effected.

The morbid alterations of the mucous surface of the bladder, produced by this disease, are different degrees of vascularity, from merely a few patches of a dark or a bright red colour, to an entire vascularity, in some cases so marked, as to appear as if the bladder had been daubed over with blood; the veins in general are turgid; the membrane becomes much thickened; frequently numerous ulcers form, covered with a tenacious brownish-coloured lymph; sometimes these are very numerous and deep, so as to give a honey-comb appearance to the membrane. The inflammation may run so high as to end in complete sphacelus of the interior of the bladder—I saw this in two instances. The mucous membrane generally forms numerous rugæ, which may be matted together by coagulable lymph.

The discharges coming from a membrane so altered by disease, are blood, in general venous, and often in very large quantity; a slimy, tenacious mucus; a powdery, white sediment; or a fœtid sanious matter.

The cellular substance under the mucous membrane be-

comes filled with lymph, and in consequence is liable to be much increased in depth. The muscular fibres are usually much thicker and stronger, and the intervals between them may be filled with lymph: occasionally small abscesses form in the muscular parietes. In one instance I saw an abscess formed between the muscular layer and peritoneal coat, which attained considerable size, and apparently was caused by irritation from a long continued disease of the mucous membrane.

The constitutional symptoms attendant on the disease are great derangement of the digestive organs, as indicated by loss of appetite; thirst, often very urgent; tongue white, or loaded with a yellowish brown mucus; nausea, sometimes vomiting; a costive state of the bowels; fæces usually dark-coloured; a harsh dry skin, and emaciation.

A variety of remedies have been advised for this disease; most of them I have repeatedly tried, with little or no effect beyond that of being in some degree palliative. The buchu leaves having been lately strongly recommended, I was induced to make a trial of them.

CASE 1. The first case in which I used it was apparently a hopeless one, recommended to me by a medical friend in December, 1821.

———, æt. —, upwards of six years ill, emaciated and greatly debilitated, lower extremities paralytic. When he passes his urine it is generally either with great difficulty, from its being loaded with a large quantity of slimy, tenacious, and stringy matter, or else involuntarily. His bowels were habitually costive; appetite totally gone. He had been under the care of so many medical practitioners, without the least benefit, that I feared that little could be done for him. I passed a bougie in the first instance, to ascertain the state of the urethra, which I found rather irritable. I also used several of the common remedies for irritable bladder, with no effect, at the same time closely attending to the state of the digestive organs; lastly, I gave the buchu in the form recommended by Dr. Reece.

R. Infusi Buchu ℥vi.

Tincturæ buchu.

————— cubebæ āā ℥ss.

M. Sumat coch. amp. duo ter in die.

In six days after I found his appetite and strength improved; able to walk firmly; the mucus much diminished in quantity; capable of retaining his urine some hours, and no longer passing it involuntarily. His own words to a medical friend

were nearly the following: 'Instead of being disturbed every five minutes during the night, by painful erections, or by the desire of making water, I can sleep some hours at a time; I never wet my bed now; I can walk stoutly through the room, and even up stairs, without help; my appetite is excellent; the heart-burn gone; the sediment in the urine greatly diminished. I feel a strength in my back and loins unknown to me for years.' He continued to improve for a considerable time, but became unable to obtain any more of the buchu, and in some degree relapsed: however, his condition is infinitely improved.

CASE 2. Philip Dwyer, aged 67 years, sallow complexion, emaciated, ill for three years. Complains of severe pain in the pubic region, particularly before he passes water. Great irritability of bladder, passing water in small quantities every quarter or half hour during the night: during the day can occasionally retain it for two hours. Less irritability when using much walking exercise; when sitting is affected with a stinging or scalding sensation in the prostatic region. Urine generally white or muddy. Frequently passes a large quantity of a slimy, pale yellow-coloured mucus, voided with great difficulty, and soon putrefying: is much relieved by its expulsion from the bladder. Is greatly debilitated, and has lost much weight. Tongue loaded with yellowish mucus. Thirst. No appetite. Bowels generally constipated, stools black. No enlargement of the prostate could be felt.

Previous History.—Never had gonorrhœa. Has been a temperate liver. The disease commenced three years ago, first with slowness and difficulty in passing water, which was followed by frequent micturition. He attended the Talbot Dispensary for five months, and left town apparently cured. He relapsed, however, in a month, and returned to the Dispensary, May 13th, 1822. He was ordered a pint of the aq. calcis daily, twenty drops of the muriated tincture of iron three times daily, an opium suppository (three grains) every night, and purgative pills to be taken occasionally.

May 24th. Up five times last night to pass water; slime in less quantity; can expel his urine with more force.

29th. Worse: up fifteen times last night. The slime has not been discharged for some days; since its stoppage great irritability of bladder has existed.

R. Infusi buchu ℥vii.

Tinct. ejusdem.

— cubebæ āā. ℥i. M. Sumat ℥i. ter in die.

Perstet in usu tinct. ferri muriatis.

31st. Reports that he has been better for the last two nights than for two years previous. Passed a large quantity of slime yesterday, which came away readily: up but four times last night.

June 7th. Continues better.

19th. Greater irritability of bladder: a painful swelling in pubic region: no mucus discharged for some days. This relapse arose from not having been able to procure the buchu during the last week. His mixture was repeated as before; also the muriated tincture of iron.

21st. Much better. The slime was discharged after taking the medicine twice: up but twice last night.

Continuantur medicamenta.

July 5th. Continues mending.

August 4th. Called on me to say he continues well, and has been able to follow his ordinary occupation as a labourer for the last month.

CASE 3. Henderson Waters, a debilitated, emaciated man, ætat. 31, visited August 4th, 1822, with my friend, Dr. Cumming; found him labouring under much fever; urine dribbling almost constantly from him, or else passing it in the quantity of half an ounce every five minutes; the urine loaded with slime. Lower extremities totally paralysed; the upper nearly so. His lower limbs rigid, and frequently jerked up under him by painful spasms; severe pain in the soles of his feet. Much irritability of the rectum. The glans penis in a state of slough, from keeping it constantly immersed in the urinal. The last dorsal vertebræ more prominent than usual; no pain caused by its forcible pressure.

Previous History.—Five years since was first affected with weakness in his knees, which, to use his own words, “gradually extended from them over all his body.” In a month after the first symptoms of disease, the muscles of the spine became very weak, obliging him to be almost constantly lying down. In four months he became totally paralytic.

At the commencement he was bled from the arm; blistered on the back and thorax; an issue was established in the cervical region, and kept open a long time without any relief; tepid salt-water baths were also used without benefit. A month since the moxa was applied to the lumbar region; at first he thought there was an amendment in his limbs. During the last week he was attacked with violent rigors, succeeded by hot and sweating stages for four days successively: this intermittent appears to have ended in continued fever.

R. Calomelanos gr. viii.
 Jalapæ gr. xv.
 Capsici gr. iii.
 Elect. Sennæ q. s. ut f. bolus statim sumendus.
 Haust. ol. ricini post horas quatuor.
 Baln. tepidum vespere.

5th. Two stools; less fever; tongue cleaner; feels better; urine paler.

Rep. med. ut heri præscript.
 Enema Terebinth. vespere.

8th. Fever gone; irritability of bladder undiminished. Put on the use of buchu, as ordered in the last case.

10th. Can retain his urine for half an hour at a time; little or no pain in the bladder; strength and appetite improved; the sloughs detached from penis, sore healthy; a slight slough over the trochanter major, from pressure and debility. Ordered nourishing diet, and to continue the buchu.

August 20th. (*Report by Dr. Cumming.*) 'In every respect better; can now retain his urine for two or three hours at a time; no uneasiness in the bladder. For some days past sitting up; looks greatly improved. Tongue, pulse, and bowels, natural. Paralytic affection of lower extremities as before.'

August 30th. At his work as a watch-maker; can retain urine for four or five hours; health good; limbs much stronger.

Jan. 8th. Continues as last reported."

He also recommends it, after a trial in several cases, as an auxiliary in dyspepsia. When the irritability of the bladder proceeds from disease of the prostate, he thinks it pernicious. In a case of dyspepsia, combined with a nephritic affection, it was also decidedly useful.

A case of Suppression of Urine., By CHRISTOPHER TEELING, M.D.

"In this case scarcely a drop of urine was passed during the space of thirteen days. That Suppression of Urine should occur in a patient subject to calculous and gouty symptoms is not very unusual. Its striking peculiarity was the quantity of gravelly matter in one kidney, with the complete stoppage of the ureter on one side, and the evidently inflamed condition of the other kidney, and that neither of these occurrences was marked by any local urgent pain, or sickness of the stomach, and scarcely any fever.

Dissection, twenty hours after Death.—The omentum was diseased, and both kidneys were surrounded by an immense quantity of fat. The right kidney was diminished in size: the cavity of its pelvis was filled with calculi, of a whitish-grey colour, and rough surface, many of them as large as small peas. The whole internal or secreting surface of the kidney was firmly coated over with a fine kind of gravel, resembling pulverized free-stone; and in the upper part of the ureter belonging to it a calculus was found, as large as a small almond, which completely blocked up the passage. No urine whatever appeared to have been secreted in this kidney.

The exterior of the left kidney was of a purple-red colour. In its pelvis there was a small quantity of urine, together with a few calculi similar to those found in the right kidney, but there was none of the coating gravelly matter. The bladder contained a few calculi, and some urine. The other abdominal viscera were perfectly healthy."

Case of a young woman, who has discharged, and continues to discharge from her stomach a number of Insects, in different stages of their existence. By WILLIAM PICKELLS, M.B.

The subject of this case, a young woman, was affected with melancholy and occasionally cataleptic. After some time she was taken with vomiting and convulsions, and discharged from the stomach a large number of insects: they were voided in the form of larvæ, of pupa, and perfect insect, and were a species of beetle (*blaps mortisaga*, *tenebrio molitor*) or meal worm, and a third a dipterous insect. The case is well attested, and accompanied by drawings of the insects.

"A mode somewhat novel,* but which proved effectual in instantaneously cutting short the convulsions, was accidentally discovered, and was afterwards resorted to in several instances with the same success. Directions were given to her aunt to avail herself of it in every instance.

The history is given at great length, and contains much curious matter. The spirits of turpentine succeeded best in procuring the discharge of the insects downwards and rendered the use of emetics unnecessary. It appears they were introduced by eating clay, which the patient had practised for some time.

* *Digito medici in vaginam intromisso et in os uteri adpresso semper cessant convulsiones, eo annoto autem, redierunt. Hoc experimentum sæpius iteratum fuit a Doct. Keogh, Casey, et Bull.*

Two cases of Successful Removal of Tumours from the Neck : with observations. By R. ADAMS, A.B.

The frequent occurrence of enormous tumours on the side of the neck, and the great danger attending their extirpation, render the following cases extremely interesting, more particularly as both on the Continent and in England the most intrepid surgeons have left the sufferers to their fate. Cases similar to those detailed in the following communication are noticed in J. Bell's Surgery, and the Dictionnaire des Sciences Medicales, in which the idea of an operation was discountenanced. Dr. Physick has operated with success in a case in which the tumour was larger than the one (Bridget Daly) described below.



BRIDGET CUNNINGHAM.



BRIDGET DALY.

The disease in the following case originated in a moveable tumour, about the size of a bean; it soon became fixed, and grew more rapidly in proportion to its newly acquired size.

"CASE 1. Bridget Cunningham, æt. 34, a thin, delicate woman, has come to Dublin from the country, where she has always resided, seeking to be relieved from a large tumour, of an oval form, obliquely situated on the left side of the face and neck. From its greatest height, which corresponds to a line drawn from the eyebrow to the summit of the cartilage of the

ear, it extends downwards to within two inches of the sternal articulation of the clavicle; anteriorly it reaches to within one inch of the angle of the mouth, and passes posteriorly the mastoid process, corresponding for some extent to the anterior edge of the trapezius. The circumference of the neck of the tumour amounts to fifteen inches and an half, and the largest part does not exceed this measurement more than one inch; so that the tumour does not hang pendulous on the neck, but firmly stands out at the distance of five inches from the parts which afford it attachment. It is rough and tuberculated on its exterior surface, and of a very firm consistence, preventing the complete opening of the mouth. No part has, apparently, been displaced, except the inferior lobe of the ear, which the tumour, in its progress upwards, has carried along with it so as completely to intercept the entrance of air into the external meatus.

Upon closely examining the tumour, it appeared somewhat fixed in the situation where it covered the parotid; but that all that portion which lay upon the side of the neck was in some measure moveable, and could be lifted off from the side of the larynx and mastoid muscle: and although it sunk too deep beneath the ear and angle of the jaw to permit the fingers to pass or ascertain its connexions here, and at the same time prevented the complete opening of the mouth, still, on the other hand, deglutition was but little impeded; and on due consideration, and a careful inspection of the fauces, I became convinced that the pharynx was not as yet too deeply concerned: I felt no hesitation therefore in recommending her to submit to the immediate removal of the disease, to which she gladly assented.

May 16th, 1818. With the assistance of Messrs. Colles, Wilmot, Duggan, Cusack, Harrison, and in the presence of other friends, I proceeded this morning to the excision of the disease in the following manner: the patient placed horizontally on a table, her head properly disposed to the light, I commenced by making two incisions, extending from the highest to the lowest part of the tumour, comprehending between these an elliptical portion of skin left attached to its surface. I next dissected the skin from its anterior part, turned it towards the cheek, and separated the cyst to some depth.

Difficulties now occurring in the removal of the tumour, where it passed behind the ascending ramus of the jaw, we endeavoured to raise it from behind, and but partially succeeded, until, by firmly grasping and pulling it out from the neck, we had cut those parts of the capsule which, connecting it to the subjacent parts, felt most resisting. Having raised

it from below upwards, it remained to detach it from the parotid space, into which we found it, as it were, firmly impacted; by the cautious use, however, of the knife, the cutting edge of which was always presented towards the tumour, and by the exertion of some force, the whole suddenly came away. Lastly, some portions of remaining capsule, together with the anterior part of the parotid gland, somewhat altered from its natural appearance, were dissected from the masseter muscle. Numerous wounded arteries poured out their blood, but were quickly stopped by the fingers, and tied after the operation. As the parotid duct did not present itself, it must either have been pushed from its usual situation, or have degenerated from its natural appearance, of which the latter appears to me the more probable.

The tumour now removed, its deeper relations were exposed. We observed that it had reposed on the side of the larynx, and in great part on the sterno-mastoid muscle. The rapid contractions of the skin, when the distending force was removed, considerably diminished the cervical portion of the wound, and concealed from our view those parts which below were in immediate contact with the tumour. Above and in front the whole of the masseter was dissected clean, and behind it the ramus of the jaw, and anterior edge of the mastoid muscle, was for some extent exposed. Between the last mentioned parts the tumour had buried itself into a deep cavity, bounded behind by the mastoid process, before by the back part of the articulation of the jaw and pterygoid muscle, above by the meatus auditorius and the ear, to the root of the styloid process. In short, the space was entirely disclosed which is naturally occupied by the parotid gland, not a vestige of which was to be seen. How close upon the internal carotid and jugular vein the tumour pressed is unnecessary to point out, as the relative situation of the styloid process with these parts will be recollected.

Having now carefully examined the exposed surface, and being satisfied that every particle of disease was removed, we proceeded to dress the wound by filling it with dossils of dry lint. The patient got an anodyne, and, in a faintish state, was carried to bed. The weight of the tumour, in a few hours after its removal, amounted to one pound six ounces: externally, it was of a yellowish colour, internally, it exhibited a cellular structure, firm in general, but soft in some places. The whole was surrounded by an adherent capsule, which sent productions between its numerous lobes, to be connected with small cysts; some of these occupied the centre of the tumour,

and it was the increased size of the more superficial of them which gave the exterior tubercular form to the disease. In its yellowish colour and consistence, the interior of the tumour seemed to approach to the state of carcinoma, but it wanted that fibro-cartilaginous texture which many think essential to this morbid structure."

On the first three days after the operation, there was little excitement. About the eighth day the symptomatic fever appeared alarming, it passed off however in a critical perspiration, and on the fourteenth day she walked out; the sore was sloughy, and was dressed with melted basilicon and turpentine, which soon made it appear healthy. In six weeks the wound was completely healed.

"It is now five years since she submitted to this operation; and I had the pleasure of hearing within these few days from the County Louth, where she resides, that she remains in perfect health, and earns her bread by laborious occupation."

The author states, that "upon a little reflection I became convinced that this was one of those cases of simple encysted tumours, which, dating its commencement from some imperfectly resolved lymphatic gland developed over the parotid, had, by increasing size and pressure, effected the absorption of all that portion of the salivary gland which lay beneath it: indeed, so complete was the obliteration of this organ, that the only part of the true glandular structure which the most careful examination could recognize, was that small portion which, lying over the masseter muscle, was not covered nor compressed by the tumour."

He then makes some reflections on the cases in which an operation may be ventured on when the disease is in the situation of the parotid; he thinks the scirrhus of the parotid has been rarely met with by morbid anatomists, whilst the encysted tumours occupying the parotid region are constantly to be observed. The result of his reflections on the subject is this,—that the mobility of the tumour is the chief point to which our greatest attention must be directed, from this circumstance to determine whether the cavity of the larynx is not engaged, or that the disease has not affected the lining membrane of the pharynx; the slow increase, the small and superficial commencement of the tumour, will be encouraging, but it is its complete mobility that must decide upon the propriety of the operation; which may be performed on a person far advanced, and though the disease be of great extent, as the following case sufficiently shews.

"CASE 2. Bridget Daly, æt. 68, all her life an inhabitant of this city, has been for these latter years incapable of making any effort to support herself, as she is afflicted with a growing tumour, which now covers almost the entire of the neck, overhangs the chest, and its weight is such as to require her constant attention.

The disease, she states, commenced about thirty years ago, beneath the angle of the jaw, as a small hard tumour, for the origin of which she could assign no cause; it remained stationary for the first few years, then began to grow, but so slowly as only to be observable from year to year; latterly, however, she is each week made sensible of its enlargement from the greater inconvenience she suffers from its weight and pressure. The size which the tumour has at length acquired is very considerable, the highest part of it is situated beneath the right ear, the cartilage of which it has pushed upwards; from this its attachment extends obliquely forward over the ramus and angle of the lower jaw for two inches beyond the chin to its *left* side; posteriorly it passes the mastoid process, and descends towards the top of the shoulder on the border of the trapezius for two-thirds of its extent; there leaving the muscle, the line circumscribing the inferior part of the neck of the tumour passes downwards in a semicircular direction over the sternal articulation of the left clavicle, which it touches, to the edge of the mastoid muscle of the opposite side, and then ascends to the lower jaw along the left side of the larynx. This circumference of the neck of the tumour measures *twenty-four inches*, and comprehends every part of importance in the cervical region; above, the tumour does not merely overlap the lower jaw, but seems to come as it were from behind and within this bone from the space above the os hyoides and floor of the mouth; from which descending to the clavicle, it covers the whole of the anterior part of the neck, completely overlapping the larynx and trachea, which have been carried by the tumour to the left side. From this, its smallest part, although the most important for our consideration, the tumour is projected forward, and at the same time across the neck, increasing so much in size, as in the anterior view it conceals the entire of the neck and clavicle, overhanging the shoulder and thorax to the third rib, upon which however, except when the head is bowed, it does not rest, a circumstance which, when its great weight is taken into consideration, indicates some firm and bony attachment above; it is of a stony hardness, with many irregular eminences on its surface.

It was clear that if some active measures were not quickly

resorted to she had but a short time to live : her difficulty of breathing and oppression being such, that whenever she walked her lips became livid, she had a sense of suffocation which induced her to stop for a moment, and raise up the tumour from the trachea ; add to this, that within the *last three weeks the disease had increased with unusual rapidity*, a circumstance at once unfavourable, yet calling for decision.

Upon close examination I discovered that, although the tumour could not be depressed without moving the head, or the fingers passed between the diseased and the bony parts above, still it could be raised for a small space from the clavicle, and the edge of the sternomastoid muscle could be felt under it, so as to assure me that this muscle was interposed between the great vessels and the tumour ; the larynx and trachea were no doubt covered, involved in the tumour, and could by handling alone be recognized ; yet it was certain that their cavities were not engaged, as lifting up the tumour removed any difficulty of respiration, which was unattended with that peculiar sound in inspiration which accompanies obstructions in the larynx : behind, it lay superficially on the trapezius and mastoid process ; but how deep before the process and beneath the jaw it penetrated could only in part be ascertained by an examination of the mouth and fauces, which however, betrayed no adhesion of the tumour to the living membrane of these cavities, as its convexity could be felt moveable under it. Upon the whole, therefore, the chief and immediate danger from an operation appeared to me most to be apprehended from the bleeding from numerous veins and arteries, unavoidably to be wounded in so extensive a dissection.

Dec. 28, 1819. The patient placed on a table, I proceeded this morning to remove the disease in the following manner : commencing by an incision from the ear across the chin down to the cyst of the tumour, which was instantly followed by a profuse bleeding, and before we could proceed farther, it became necessary to tie many vessels ; I then continued the dissection in the same line, endeavouring to detach the tumour from the surfaces of the lower jaw, to which, as I anticipated, I found it very firmly attached, and from this neighbourhood it derived its chief supply of blood. Nothing, indeed, could be more unpromising than this stage of the operation ; every new incision was followed by a gush of blood, which would not permit us to proceed until the vessels were secured, among which the external maxillary, or facial, bled most profusely ; but after some firm connecting bands, which held up the tumour, were felt and carefully divided, it dropped a little from

beneath the ear and the jaw, and the arteries which were not tied ceased to bleed. It was now time to detach it below from the neck, which was more easily accomplished; after making a circular incision, and raising up with one hand the tumour from the neck, we met with but little difficulty until we arrived at that point where it lay upon the sternomastoid; here the tumour was so firmly attached, that it was impossible to dissect it from the muscle, which it therefore became necessary *to split from below upwards*, to disengage the diseased mass. It now only remained to detach it from its deepest connexions beneath the ear and lower jaw. As there were no very firm bands to be divided here, I abstained further from using the edge of the knife; but sometimes with its handle, and sometimes with the fingers, but chiefly by twisting it, it at length yielded, and came away entire. As soon as the patient recovered from the faint into which she fell immediately after the operation, many small vessels were secured, and the wound as quickly as possible closed; it was necessary to unite several points of skin by suture. The poor woman bore this painful operation with much fortitude, only occasionally complaining when the larynx was disturbed by the displacing of the tumour. In the evening there was slight hæmorrhage, which was stopped by pressure, without opening the wound.

Nothing material occurred in the progress of the case until the fifth day, except a gradual acceleration of the pulse, and an increased heat, not more than was to be expected; but on the sixth day there appeared to be a sudden depression of strength, headach, nausea; the pulse was small, and 130 in a minute; palpitation of the heart, with a general increased throbbing of the arteries in the neck; we found her sometimes inclined to despond about her state, her mind occasionally to wander in a slight degree. She was kept as quiet as possible, and the strictest regimen observed; her bowels were carefully attended to. On the seventh day she was exceedingly ill, her pulse irregular, 140 in a minute, complaining of soreness and darting pains over her whole head, making her cry out loudly at times; the forehead and side of the neck were of a deep red colour. Towards evening I was called to her by my friends Surgeons Owen and Egan, who reported her dying; my friend Mr. Duggan attended with us, and we prescribed pills containing calomel, opium, and digitalis, after which she was more composed, the pains were lessened, and her bowels freed. In the morning her mouth was sore, and teeth loose from the calomel, her pulse reduced to 120, and her tongue, which the day before was hard and dry, like burnt oaten bread, this

day, as far as could be seen, was cleaner. There was a difficulty in getting up a viscid saliva, and some irritation of the larynx. From this time her recovery was slow, and without interruption gradually progressive.

The wound was six weeks healing; the membrane of the mouth, beneath the tongue, was raised as in ranula; the greater part of the substance of the submaxillary gland, for a time inflamed, was projected through the lips of the wound; at the lower part, above the clavicle, the skin was elevated, and there was a crepitation of air probably from the decomposition of the blood: there was of course an unpleasant fœtor from the suppuration commencing, which at last became necessary to encourage by emollient poultices; but upon the whole our chief hopes, during the progress of the cure, rested on the healthy state of the wound.—Where the tumour had rested on the basis of the lower jaw and its angle, some defect in her appearance resulted from the rounding off, and absorption of the bone.

It was quite gratifying to see with how little deformity the several cross incisions in the neck united. Relieved from the heavy burden which long oppressed her, this poor woman's spirits and health were now better than they had been for many years. Unfortunately about six months ago (in the fourth year since the removal of the tumour) that part of the cicatrix which had united to the mastoid muscle became thickened, and contracted the motions of the neck. This thickening and induration she has been told is likely to increase, and as she besides suffers occasional lancinating pains in it, she is most anxious to have it removed; but I am unwilling to encourage a woman at her time of life, being now past seventy-two, to submit to a second operation under such circumstances, particularly as the disease seems slow in its growth; and even should it ever again assume the form of an organized tumour, a considerable time must elapse before it shall have acquired such a size that by its weight or pressure it can, as heretofore, interfere with respiration."

The tumour weighed 5lb. 7oz., containing in a cavity situated at one extremity nearly a pint of albuminous fluid.

In making some reflections on the case, the author objects to the propriety of securing the carotid previous to the excision of large tumours from the neck, particularly, as he believes the secondary fever runs higher after their extirpation than those in any other situation. He doubts also whether a ligature on the carotid will always moderate the hæmorrhage;

and states that, "I may mention that in my own limited experience I have known, in two cases, this means to fail to produce these desirable ends;—in one an hæmorrhage *to continue unrestrained, and end fatally after the carotid* had been secured, (and completely too, as was proved by dissection,) and in another an aneurism, by anastomosis of the lip, tongue, and side of the face, *to enlarge after* a similar operation had been resorted to, with the view of checking its growth. Indeed if we carefully review the different steps of the operations in the two remarkable cases already alluded to, from which have arisen the strongest recommendations of the authors to commence the removal of large tumours from the neck by including the carotid artery in a ligature, or at least by passing one under it, we do not, in my humble opinion, find in these cases a strong confirmation of the doctrine they advocate, for although in the first case this great vessel *was* secured, but not without unavoidable "difficulty and delay," and the loss of a "considerable quantity of blood" in the actual removal of the tumour, yet "each stroke of the knife was followed by a gush of blood, and occasionally a tremendous stream," which it is added, after continuing a few seconds ceased. And in the second case, although the artery was "completely exposed, and an able assistant was prepared to compress the carotid trunk," "yet the pressure he could make with all the force he could exert was actually incapable of repressing the torrent;" an occurrence which according to my view of the subject, would equally have happened if a ligature had been passed under this great vessel low in the neck. For my part I feel persuaded that any one who will consider for a moment the peculiarly free anastomosis already alluded to, will feel satisfied that the facial artery (the vessel supposed to have been wounded in this case) would still continue to bleed even were the carotid trunk secured."

He observes also in objection to the propriety of tying the carotid in these cases, that the external carotid can generally be secured before the anterior part of the tumour is detached, or the great maxillary artery opened: "the *internal* carotid can alone be endangered when the knife passes to the pharyngeal side of the styloid process, where the tumour is not likely to pass, and where, besides, it would not be safe to follow it, even were the common carotid secured, as the jugular vein and important nerves would, in that case, be interfered with."

He thinks these preparatory strong measures of tying large

vessels are equally unnecessary in tumours of the neck, as in the amputation of the hip or shoulder.

Cases of Opacity of the Cornea, and Cataract. By MICHAEL
RYAN, M.D.

Dr. Ryan succeeded best in opacity of the cornea, when recent, and formed immediately subsequent to acute ophthalmia, by scarifications to the temples, succeeded by epispastics, as also from the application of the latter to the back of the neck. Some particulars follow illustrative of modes of treatment formerly practised. A case is then subjoined illustrative of the best mode of performing the operation for cataract.

“ M. Dwyer, a female of a thin, spare habit, æt. 24, has been totally deprived of vision for the last three years, in consequence of cataract of the left eye, she having been deprived of vision of the right in her infancy by opacity, the sequel of variola. The pupil of the left eye was moveable, and she was capable of distinguishing light from darkness. After suitable preparation, I performed the operation of depression in the usual way, and observing that the lens arose, though detached from its capsule, I now brought it in contact with the edge of the needle, and divided it into three segments; I next pierced the anterior capsule of it, and thus allowed the free access of the aqueous humour. The after treatment was as commonly practised. On inspection, after a lapse of four days, the three parts of the cataract were found united, but they seemed detached from the surrounding parts, and were moveable behind the pupil. The process of absorption appeared to advance slowly, and vision was but little improved at the expiration of fourteen days from the time of the operation. The patient observed that a dark cloud was moving between her and the light, and most earnestly solicited me to afford her further relief. I therefore resolved to comply with her request, and was determined to subject the following mode of operating, which originated with myself, to a fair trial. The patient was seated as usual, her head supported on the breast of my assistant, his right hand was placed on her chin, his left secured her forehead. I now introduced the needle of Hey at a distance of more than a line from the edge of the cornea, under the course of the long ciliary artery, through the sclerotic tunic, and brought its point behind the cataract, which with great facility I pushed into the anterior chamber; I there retained it against the posterior surface of the cornea with the needle. I directed my assistant to take the needle with his left hand, and keep

the lens just as it then was, while I made an incision on the cornea as for extraction, and thus cut down on the lens itself, which suddenly escaped, followed by some of the aqueous humour. The needle I withdrew carefully, closed the eye, and covered it with a fold of linen steeped in cold water. The issue of this case was successful.

As far as I know, this mode of operating has not been hitherto adopted, and as far as I may judge from the example before us, I think that this improved operation will in certain cases be much safer, and more certain, than depression, keratonyxis, or extraction of cataract. In all cases of hard cataract, where the pupil is moveable, and free of adhesions, this mode can be adopted. The great dexterity required in extraction, or keratonyxis, together with the aid of a scientific assistant, are advantages which every operating surgeon cannot always possess; but the proposed operation requires less dexterity, and is, so far, more easily accomplished."

Observations on the Medicinal and Chemical properties of the Sulphate of Quina. By FRANCIS BARKER, M.D.

This paper confirms the success of this remedy now generally acknowledged, and states that it succeeded, where the bark itself had failed;—"that a grain or less taken three or four times a day was as efficacious as larger doses. In one of Dr. Morgan's cases gr. $\frac{1}{2}$ three times in the day suspended the paroxysm for eight days."

To detect adulteration he gives the following chemical properties, by which its purity may be determined.

"When exposed to heat on a slip of platina foil, it melts like wax, it then blackens, partly rises, and burns with flame. It requires at least three hundred times its weight of water for solution; much more of it is taken up by hot than by cold water, from which it crystallizes in prisms. It is much more soluble in alcohol than in water, dissolving in a quantity of rectified spirit, of spec. grav. 840, amounting to about forty times its weight. Its aqueous solution is decomposed by several reagents. Soluble barytic salts, as might be expected, render it turbid; but I have not observed any reagent to produce so striking an effect as *Iodine*. I have found a very minute quantity of this substance in water; for example, a grain of iodine heated in a drachm or two of water, to produce, in the watery solution of the sulphate of quina, a copious precipitate of a cinnamon brown colour. This precipitate dissolves on heating

the liquor; it is also soluble in rectified spirit, and is again thrown down by water. The tincture of iodine may be also applied as a test of the sulphate of quina; this tincture is partly decomposed by water, but the colour of the precipitate is quite different from that produced by the sulphate of quina, which in colour very much resembles the Peruvian bark."

Six cases of Tetanus; accompanied by Observations on the Leading Symptoms of that disease, with the view of ascertaining its primary seat, and most appropriate Mode of Treatment. By RICHARD CARMICHAEL, Esq. M.R.I.A.

Mr. Carmichael tried the effect of the tartar emetic ointment as recommended by Dr. Jenner. One of the patients lived. The ointment was applied not only over the spine but over the whole back. In surveying the remedies which were most useful in his experience, Dr. C. mentions that the warm bath, though frequently employed, never succeeded; blood-letting hastened the fatal result; mercury removed the slight spasms observed on its accession, and in those instances, where wounds are followed in irritable habits by nervous symptoms, as twitching of the hands and feet, he thinks it may be of service, though when the symptoms have set in, their removal by this remedy is impossible; stimulating remedies, as wine, opium, ether, he recommends, particularly the latter, from its sudden operation, which has been highly praised by Dr. Reid. He believes that the sympathetic nerve, or the intestinal canal, to which this nerve is chiefly distributed, is extensively engaged in the production of tetanus. He then states that "Young children are subject to a spasmodic disease, in which the body is bent backwards so as to form a curve, or true opisthotonos;" and that he has "at least witnessed a dozen instances of this disorder, and in all of them the greatest derangement existed in the bowels, as was rendered apparent by the presence of dark green fæces, on the removal of which by calomel and castor oil combined with turpentine and opium, these tetanic symptoms disappeared."

Cases of Poisoning with Opium. By JOHN CRAMPTON, M.D.

This essay relates a case of the success of cold water by affusion on the head and face, with riding in a carriage to excite the patient. Sulphate of zinc had been given: the quantity of laudanum was two ounces, and was taken an hour and an half before the cold water was used. Vomiting soon commenced, and the patient recovered.

Case of Laryngeal Inflammation, by JOHN CRAMPTON, M.D. where Tracheotomy was successfully performed by RICHARD CARMICHAEL, Esq. M.R.I.A.

Mary Dunn, aged 30, was admitted into the hospital on the 25th of October, 1823, with a frequent cough, difficult breathing, attended with a hoarse brazen sound, and accelerated pulse; four days before she had been seized with a dull pain from the larynx down along the course of the sternum with difficulty of breathing, which were aggravated by the use of spirituous liquors, advised as a remedy by her friends. On the evening of her admission (the 25th) twelve ounces of blood were taken from the arm, and an expectorant prescribed, which gave her a tranquil night. On the 26th the symptoms had increased, and the depleting plan pursued; on the 27th they were farther increased; on the 28th her night was very distressing; local bleeding was practised with some slight relief. The rima glottidis appeared to be nearly closed; her extremities were cold, pulse fluttering and feeble, above 130. Tracheotomy was concluded to be the only remedy. It was performed; mucus was discharged through the wound, her colour improved, and all the symptoms were immediately mitigated. The pain in the larynx gradually subsided, and by the 22d of November was completely cured.

The aperture in the trachea was made in the shape of a rhomboid, capable of admitting the point of the little finger. The phlegm passed easily through the opening, and relieved her at once. This plan was preferred to a simple division of the rings of the trachea and the introduction of a tube, as such an opening would not suffer the mucus to escape, and the tube would excite great irritation. The only attention afterwards necessary, was the removal of the mucus from the aperture in the trachea by a probe armed with lint, and sometimes by the patient herself with a sponge.

An Account of the Chemical Properties of an Acid found in the Human Stomach, together with Remarks upon the Manner in which it is Formed, both in Disease and in Health. By ROBERT JAMES GRAVES, M.D.

A young woman rejected, occasionally for years, large quantities of acid from the stomach, which excoriated extensively the fauces, œsophagus, and mouth. On examination, the acid proved to be the lactic; an acid discharge was examined in another case; this disease was a feverish cold; the discharge was strongly impregnated with the lactic acid.

The presence of this acid, the author supposes, will explain the effects of iron on the system, and other metallic preparations. On this subject farther experiments are wanting, before any new pathological views can be given which are worth hearing. The lactic and muriatic acids, which are now proved to exist in the stomach occasionally, may render certain medicines poisonous. The subject is of the deepest interest, a rich, but uncultivated field.

On the Use of Tartar Emetic Ointment in Epilepsy. By JOHN CREIGHTON, Jun. Esq.

The tartar emetic ointment was applied till eruptions were produced.

“For this purpose some of the worst cases were chosen; two of them rendered perfect idiots by the frequent recurrence of the disease, and others with such aberration of mind and weakness of intellect, as to be but few degrees removed from the same degraded state. Though we have it not in our power to assert that a complete cure has been effected in any case, yet we have the satisfaction to state, that the fits are now in each patient comparatively of rare occurrence, and are of so mild a character, as not to interfere with the health or strength of the individual. Indeed, these hitherto helpless objects are now capable of applying themselves to various useful employments, and are no longer a burthen to the Institution.

Each patient was allowed to remain a certain time in the Infirmary before the use of the ointment was commenced, both to enable us to ascertain the time of recurrence and duration of each fit, and also to submit them to an antiphlogistic regimen. This had no influence whatever on the disease itself, and was suggested to us merely from the plethoric habit of body, which appeared in all of them on their first coming into the Infirmary. The ointment made use of was in the same proportion as that used by Dr. Jenner in his cases, with some trifling variation.

The eruption produced by the friction of Tartar Emetic ointment varied very much as to its first appearance, in the different cases in which it was tried; in some it appeared in twenty-four hours, in others, not for three or four days. The imperfectly-formed pustules, in some instances, were small, and at a distance from each other; in others, large and numerous; and, in two or three instances, they degenerated into painful, irritable blotches, which gave the patients some trouble for a day or two, chiefly arising from the pressure or rubbing

of the clothes against them. On this occurring, the ointment was immediately discontinued; but with this exception, although we have used it extensively in various complaints, it has not been followed by any injurious effects, or been the occasion of tumours or sores difficult to heal.

The blotches sometimes produced by the ointment are rather painful for a day or two, when touched or rubbed. In a short time they are covered with several dry crusts, elevated above the surface of the cuticle, and lying one over the other. These have been called warty, cartilaginous elevations; and the successive layers of the crusts have been compared to the coats of an onion. They, however, very soon came off, leaving the parts underneath perfectly sound: in fact, if not interfered with, they will always heal of themselves. The simplest dressings are the best for them, while in the inflamed state; and the chief thing to be attended to is, to preserve them from friction. It is to be observed, that the eruption is not confined to the spot on which the ointment is rubbed; it most frequently appears in very remote parts; thus proving that its action is in some degree on the constitution."

On the Purulent Ophthalmia of New-born Infants. By ISAAC RYALL, Esq.

This disease, Dr. Ryall believes, arises from gonorrhœa, and is treated most successfully by an earlier recourse to stimulants than is generally recommended, or the nature of inflammation would seem to indicate.

"The purulent ophthalmia of infants shows itself generally within four or five days after birth, in redness of the conjunctiva lining the palpebræ, and in a thin discharge, which, if permitted to rest on the cilia, agglutinates them so firmly, as to require some degree of force to separate them; in effecting which, a copious flood of tears gushes forth. These appearances are usually accompanied with great impatience of light, feverish heat, exacerbated in the evenings, and not unfrequently with fits. In a short time the discharge becomes puriform, when there is a remission of the pyrexia, the conjunctiva becomes greatly distended, exhibiting, as has been observed, the appearance of red velvet. The eyelids are now so much swoln, that in the attempt to examine the eye, the orbiculares muscles are everted, requiring even force to replace them, and mechanical aid to retain them *in situ*. The bowels, if neglected, either remain costive, or discharge mucous, or frothy and greenish stools.

It will occasionally occur, as has already been admitted, that the several symptoms of the disease will now spontaneously cease ; but experience warns us to apprehend from their neglect a result widely different, and no less serious than partial or total death of the cornea, consequent protrusion of the iris, escape of the humours, sinking of the eye, or what is infinitely worse than this last, troublesome and disgusting staphyloma. These are the frequent terminations of the purulent ophthalmia of infants, which, it is painful to reflect, might, in almost every case, be obviated by early and proper attention.

If recourse be had in the early stage of the disease to medical aid, (what, as has been deplored, particularly with the poor, is too seldom the case,) the treatment is then indicated by the definition of 'acute inflammation.' A leech or two, according to the strength of the patient and urgency of the symptoms, are to be applied to the under lid. The eye is to be frequently fomented with a decoction of white poppy heads, which should also be injected between the palpebræ ; and, as well to prevent agglutination of the cilia, as to correct the morbid secretion of the tarsi, an ointment, consisting of one part of the ointment of the nitrate of quicksilver, and seven parts of that of spermaceti, should be applied to them twice or thrice a-day. A grain each of the submuriate of mercury and of James's powder should be given every night, at bed-time, and a tea-spoon full of castor-oil every, or every second morning. The lower extremities, and if fits occur, the whole body, should be daily immersed in a tepid bath ; and the apartment in which the patient resides, if it be practicable, well ventilated, since foul air, and crowded situations, are peculiarly favourable to the malignancy, and perhaps to the propagation of the disease.

From the great vascularity of the skin in young infants, it is often found difficult to suppress the bleeding after the removal of leeches, it will therefore be prudent to limit the number to one on each eye, which may be repeated, according to the strength of the patient, and the necessity of the case.

When the discharge shall have passed into a more virulent form, becoming very profuse and thin, assuming a deep yellow or greenish colour, it will be high time to adopt a different mode of treatment. In this stage various collyria, no doubt, have been used with advantage, such as weak solutions of the acetate of lead, of the sulphates of zinc or alum, or of copper combined with bole armeniac and camphor, but none with so much efficacy in changing the action of the secretory membrane, and arresting the progress of the disease, as a solution of the nitrate of silver, in the proportion of two or three grains

of the mineral to the ounce of simple distilled water, frequently and briskly injected between the lids with a silver or ivory syringe. All warm fomentations and cataplasms should now be laid aside; but if tumefaction of the palpebræ continue, a cold cataplasm of alum-curds, confined between folds of thin linen or muslin cloth, may be applied during the night, or between the periods of using the injection. Should the conjunctiva be greatly extended by effusion, a leech may be applied to the inner surface of the lower lid, or the projecting portions be removed with a pair of scissors.

The crystallized nitrate of silver, as being more pure than the fused, should be preferred for the solution, whose strength may be increased gradually to the proportion of eight grains of the mineral to one ounce of distilled water. The calomel and antimony are to be occasionally administered at night, and a dose of castor oil, infusion of manna, or carbonate of magnesia, the next morning: but if derangement of the intestinal canal continue, a tea-spoon full of the spiritus terebinthinæ, given occasionally in a little syrup, or a terebinthine enema, will produce the happiest effects. The disease will, in most cases, speedily yield to this treatment, the discharge gradually assume a lighter colour and ropy consistence, become diminished, and cease altogether in a few days.

The superiority which the nitrate of silver maintains, when seasonably employed, over the other fossils already mentioned, both in purulent ophthalmia and those morbid conditions of the organ resulting from inflammation, is well known to all those who have been much engaged in the treatment of this class of disease. There is reason, at the same time, to believe, that the efficacy of this favourite remedy, is greatly promoted by its mode of application. Were the solution to be merely used as a lotion, its advantage would be less striking. The shock imparted by brisk injection induces a more healthy action of the vessels and just distribution of the fluids.

Strongly astringent applications, especially of the saturnine kind, from their highly sedative agency, appear inadmissible in a species of inflammation so much disposed to slough as the infantine ophthalmia, or to a part which, from the nature of its structure, is so susceptible of morbid change as the cornea.

Blisters applied behind the ears, or to the nape of the neck, have been productive of benefit in this complaint; when applied to any part of the forehead they seemed to have increased the irritation of the eye, and tumefaction of the palpebræ."

On the Pathology of Epilepsy. By ROBERT REID, M.D.

Dr. Reid believes that the disease has its origin in the spine; his ideas are neither new nor interesting, with the exception of the following fact, which should be more generally known.

“ When making experiments some time ago, for the purpose of ascertaining what part of the animal frame was particularly acted on by *nux vomica*, when taken in excess, I found that the animals (rabbits and dogs) in a short time after receiving the poison into their stomachs became tetanic. During the spasm I observed that the peritoneum seemed closely to invest and compress the contents of the abdomen. Upon pressing forcibly a part of this membrane between my fingers, for the purpose of detaching one portion of it, so as to relieve the supposed compression of the bowels, I was rather surprised to find the spasms totally relax, and the animal begin to breathe, as if recovering from much fatigue. The moment the peritoneum was let loose, the spasms returned with violence; and this could be repeated at pleasure.*

When reflecting upon this curious phenomenon, it appeared to me, that were it possible to afford the necessary compression of the peritoneum in the human subject, while labouring under a paroxysm of Epilepsy, that the fit may be as instantaneously cut short. Opportunities were not long wanting for putting this operation into practice, and it was attended with the utmost success. The manner in which this may be accomplished is, by pressing the closed hand of an assistant forcibly on the soft part of the abdomen, towards the spine, while the patient is firmly supported on the back with the head and shoulders raised. While this operation is performing, the practitioner will often perceive a very peculiar flapping of the diaphragm, without apparently contributing to the purposes of respiration. This I have most usually met in puerperal convulsions. When it is considered that the consequences of Epilepsy are still more dreadful than the disease itself, and that the most severe of these, such as idiotism and insanity, are caused by the effects of the disease upon the cerebral structure, it cannot be doubted how important to the community at large any mode would be which could thus cut short the paroxysms, and obviate those injurious effects upon the brain.”

* It may be worthy of observation, that after repeating the above experiment of alternately compressing and letting go the peritoneum several times, the animal at length ceased to be affected by spasm, although upon killing it the poison was found still remaining in the stomach and small intestines.

On the effects of Sulphate of Quina in Typhus. By JOHN O'BRIEN, M.D.

Dr. O'Brien was regulated in the administration of the sulphate of quinine in the typhus fever on the same principles as in giving the bark itself; and as might have been expected, he used it with the greatest success.

On Diabetes. By P. SHARKEY, A.M. M.D.

Contrary to the opinion that vegetable substances, or those which contain sugar, and are capable of undergoing the vinous fermentation are improper in diabetes, especially diabetes mellitus, Dr. S. found in this form of the disease, that with vegetable diet and phosphate of soda administered in the quantity of a drachm thrice a day, his patients perfectly recovered. The first patient took a variety of medicines; the last the phosphate of soda alone, and was relieved in a short time. It did no good in the diabetes insipidus. The irksomeness of the animal diet proposed by Dr. Rollo renders the substitution of the phosphate of soda valuable. During the progress of the disease Dr. Sharkey remarked, that though perspiration was established, it had no effect on the diminution of the secretion of urine, contrary to the experience of some late writers, who have given facts to prove that a cure might be effected by diaphoretics alone.

On the Use and Advantages of Tobacco in the treatment of Dysentery. By JAMES O'BEIRNE, M.D.

"CASE 1. Catherine Finlay, aged twenty-one, a laundress, and residing in a low, swampy situation, near Newcomen Bridge, was attacked on the 8th of September, 1823, with rigors, nausea, griping pains in the bowels, and frequent desire to go to stool. At these times, instead of the natural discharge, she only passed florid blood, and, as she termed it, jelly. She continued thus for three days, without using any remedy, the frequency of going to stool and the quantity of blood and jelly increasing. On the 12th her mother gave her a dose of castor oil and compound tincture of senna: this produced a slight, but feculent discharge: immediately after, the abdominal pains and urgency to go to stool increased so as to cause great suffering. I saw her the following day; her countenance was pale and sunk, the tongue covered with a white fur; thirst considerable; skin rather warm; belly lank, with

slight pain on pressure about the umbilicus; much debility; tormina; at stool every ten minutes; discharges solely of blood and mucus; pulse 100, small and weak.

An enema, consisting of ten grains of Virginian leaf Tobacco, infused for twenty minutes in six ounces of boiling water, was thrown up, with some pain and difficulty, by a syringe, and as quickly returned without producing any effect. At 4 o'clock P. M. she was directed to take an ounce of oleum ricini, and, in half an hour after, to foment the abdomen with an infusion made by pouring two quarts of boiling water on two ounces of Virginian leaf Tobacco, and allowing it to stand for twenty minutes before use. Directions were given to continue the stuping until giddiness, nausea, and weakness came on, and then to omit it. Nine o'clock P. M. she informed me that the fomentation greatly relieved the tormina and tenesmus; that about half past eight o'clock she became very weak; a cold perspiration broke out; she felt her head giddy, and her stomach disposed to turn: that, immediately after these symptoms, and just before my arrival, her bowels gave way. On inspection, the discharge was copious, feculent, and mixed with some blood and mucus. Great relief followed; the pulse became soft, full and 90; the tormina and tenesmus much less urgent; the countenance lost gradually its pale and contracted character; she soon fell into a profound sleep.

14th. Slept until 6 o'clock this morning, when she had a free, feculent stool, with no blood, and but little mucus. At 9 o'clock had a perfectly natural stool. At 10 o'clock A. M. her pulse was soft, full, and 85; no tormina or tenesmus; countenance natural; strength and appetite returning. At one o'clock P. M. having some tormina, she had recourse to the Tobacco fomentation, which she had previously found to relieve her: it removed the tormina, and in about half an hour, produced a natural stool. By fomenting twice or thrice daily, for two days, she remained exempt from dysenteric symptoms. On the 17th she discontinued the use of Tobacco. On the 18th she resumed her usual occupations, in very good health. I have since repeatedly seen her, and she has had no return of the complaint.

During this treatment her diet was confined to barley-water, weak tea, and milk and water: flummery and milk were permitted on the 17th. The use of animal food was interdicted for at least a week after her recovery.

CASE 2. Sarah Smith, aged sixteen, and residing also near Newcomen Bridge, was seized on the first of October, 1823, with symptoms in all respects similar to those in the preced-

ing Case. For a week no remedy was used; at the end of that period her mother gave her a dose of the sulphas magnesiæ, which only provoked a more copious discharge of blood and mucus, but no feculent stools, while it increased the fever, tormina, and tenesmus, for that and the following day. Nothing further was done until the 15th, when her mother gave her a dose of castor oil and peppermint water: this effected the discharge of round, hard, excrementitious balls, streaked with blood, and gave slight relief. On the morning of the 18th she applied to me, with the pulse 100, small and weak, the countenance pale, and tormina and tenesmus urgent. She was directed to take an ounce of the oleum ricini, and to afterwards use the fomentation of Tobacco in the same way, and of the same strength, as in Case I. They produced precisely the same effects; and by occasionally having recourse to the Tobacco stupe for two days, she lost all dysenteric symptoms, and has had no return of them.

Diet the same as in the last Case."

Other Cases, are then given proving the same thing.

"On reviewing the foregoing Cases, certain of the effects of Tobacco in Dysentery cannot have failed to fix attention—its power of controlling the undue action of the heart and arteries, and of altering the character of the pulse; the certainty with which it induced that degree of debility necessary to overcome spasm, and favour the unlocking of the bowels—the unerring relief it gave to those obstinate and distressing symptoms, the tormina and tenesmus—the removal of that apparent, not real, debility, which so strongly marks enteric inflammation, and of which paleness of the countenance forms so striking a feature—its rapidly restoring the skin, stomach and kidneys, to their healthy functions—lastly, its procuring sound sleep, the want of which is so constant a symptom in this disease, and which Rouppe, Pringle, and others, could not induce by opium and the strongest narcotics—these are prominent features of its full influence, and must be recognised in the progress of the Cases just detailed.

One of these effects of this agent, the unusually quick return of the appetite, is interesting, and may perhaps be explained thus: morbid action being set up in the mucous membranes of the intestines, loss of appetite is one of its natural and constant effects; this morbid action is here subdued by means which induce temporary, not permanent, debility: on discontinuing the use of these means, the effect ceases, and the system not having suffered depletion, the stomach is, of course, placed

under circumstances more favourable to the recovery of its tone, than could possibly occur under the ordinary treatment of this disease.

Many circumstances have induced me to believe that, in almost all cases of constipation, stricture exists at that point where the colon terminates in the rectum; with the view, therefore, of reaching and acting on this supposed stricture, Tobacco enemata were employed, as we have seen, in three instances. The irritable state of the rectum prevailing in this disease, as well as the result in each of these instances, prove this mode of exhibiting Tobacco in Dysentery to have been injudicious; its failure, however, led to its employment in the valuable and efficient form of fomentation.

In an acute case, but especially in an acute case affecting a robust subject, it will, evidently, be necessary gradually to increase the strength of the Tobacco infusion, until the required degree of its influence be obtained: this can be done with the most perfect safety, as we, obviously, have it always in our power to avoid its too powerful operation by removing the stupes. It should be remarked also, that after using the same fomentation for three or four hours, it loses sensibly, and in a very great degree, its powers; therefore, whenever we wish either to increase or re-produce its effects, we should employ a fresh fomentation.

My experience in the use of Tobacco enabled me often to observe, that when, either by its external or internal exhibition, its full influence is produced, the abdominal muscles and the muscular coat of the intestines lose much of their expulsive power. This observation induced me to premise the use of a mild purgative, so as to allow sufficient time for its passage through the stomach before Tobacco was employed, or its effects on the stomach should cause its rejection, and thus insure its presence in the bowels, there to take advantage of those changes which Tobacco evidently prepares in them for its favourable action. These changes I consider to consist, first, in the suppression of the inflamed state of the mucous membrane of the intestines, and secondly in the allaying of that spasmodic action of their muscular coat, which always accompanies such a state, and on which retention of the feculent contents so plainly depends. On this point an illustration occurs in Case III., in which the treatment was commenced without premising a purgative; the succeeding day's report shows how little had been gained until it was had recourse to. Throughout the Cases given, it will always be remarked, that the purgative was occasionally omitted, and that

whenever this occurred, the progress of amendment became retarded. Perhaps, therefore, it will be found a good general rule to persevere in the use of purgatives, with the Tobacco fomentation, until perfectly natural and feculent discharges be permanently established.

During the Peninsular war, Dysentery was presented to my observation on a great scale. I forcibly recall the repeated de-traction of blood found necessary, during weeks, before the disease could be subdued, the requisite debility obtained, or the bowels freed: in most cases, the tormina and tenesmus resisted this as well as every other means then known. In strong subjects, such were the inroads on constitution from an actively depleting system, that convalescence was rarely attained for a month, and perfect health seldom in less than two or three months: the debilitated and harassed soldier, on the other hand, too often sunk under the only treatment considered likely to save him. In both descriptions of patients relapses were frequent, but infinitely more so in the last than the first, and for an obvious reason,—not being able to bear venesection, purgatives, and the other means, were unwillingly substituted. Whether the use of Tobacco shall ever supersede that of the lancet in this disease, is a point which must remain for future and more extensive trial to decide. Case VI., in which the symptoms were such as to dispose to the belief that the peritoneal coat of the intestines was engaged, seems so severe a test of its powers, that if it should not always prove a substitute for bleeding, it at least cannot be doubted but that it will be ever found a useful and powerful adjuvant to it."

Report of the Fever, lately prevalent in Galway and the west of Ireland. By ROBERT JAMES GRAVES, M.D.

This disease proceeded from want of food, a wet, cold and ungenial season, and despondency: Its treatment is not here specified. We therefore do not analyze the Report.

Extract from the Report of the Cow-Pock Institution, for the year 1823.

"The public mind being much agitated by the prevalence of small-pox during the last year, and many instances being adduced injurious to the reputation of Cow-pock, the directors deemed it expedient to institute inquiries to ascertain the facts, the result of which is—

1. That during the year 1823, a most malignant small-pox prevailed in many parts of this island. In one family, four

children who had not been inoculated died ; one who had been vaccinated, resisted the disease, although freely exposed to the infection.

2. Although a very large proportion of children previously vaccinated resisted the influence of this malignant epidemic, yet in several instances small-pox did supervene in children who had been vaccinated with care, and by experienced practitioners.

3. In all those cases, the second week of the disease was unusually mild and free from danger. The experience of this institution is confirmed in this important point by the correspondence of a number of most intelligent and respectable practitioners, to whom the directors beg leave to return their most grateful thanks for their benevolent and very useful communications.

4. Several instances of persons inoculated with SMALL-POX, are reported, on unquestionable authority, to have taken the disease AGAIN this year ; some of these proved fatal.

5. Persons who had not undergone any previous inoculation, are reported to have suffered most severely. One of our most respectable correspondents says, ' the plague, though more rapid, can hardly be more formidable.'

The practice of vaccination in this city, commenced with this century, since which little or no deformity or mortality has occurred among the children of the upper classes of society ; and the children of the lower ranks will be equally fortunate, when their parents can be prevailed upon to divest themselves of vulgar prejudices.

It is earnestly recommended to gentlemen in the country, to take lymph when they have opportunity, and lay it by for emergencies. The very general prejudice among them against dried infection, is erroneous. The practice of the institution is, occasionally to lay by such a store, some of which was used last year with success, after having been kept many months. It should be allowed to dry before the packages be made up, and be then kept in a cool place. In confirmation of its efficacy, it may be repeated, as mentioned in a former Report, that infection has been sent to distant quarters, as to the Mediterranean, which perfectly succeeded ; and last year a considerable quantity was despatched to Constantinople at the request of a gentleman attached to the British embassy formerly a resident in this country, and well versed in the practice of vaccination.

By Order,

HUGH FERGUSON, M.D.

Assistant Secretary."

ART. VIII. *An Engraved Representation of the Anatomy of the Human Ear, exhibiting, in one view, the External and Internal Parts of that Organ, in situ. Surgical Remarks, &c. and a Synoptical Table of Diseases of the Ear: the whole designed as a Guide to Acoustic Surgery.* By THOMAS BUCHANAN, C.M. Licentiate of the University of Glasgow, &c.

CAP. I.—Before a young surgeon attempts the introduction of a probe or catheter through the nostril or eustachian tube, Mr. B. advises him to make the experiment first on the dried preparation, and then if possible on the recent subject. When the probe is just entering the mouth of the tube, (on the dead subject) the surgeon should mark it slightly in a line with the tip of the nose, and from this mark measure off the length of the tube outwards, marking it also. These marks will be useful afterwards in operations on the living body. Probes should also be kept ready curved and marked—some for the right, some for the left ear, being of various assortments to suit the size of the patient's head.

“The great difficulty of introducing the probe into the eustachian tube through the nostril, is the excessive irritability of the Schneiderian membrane with which it is lined.

“To overcome the disagreeable sensation produced by the introduction of foreign substances, it might be advisable to inject tepid water into the nostril, and at the same time dip the probe into ol. amygd. warmed to the temperature of the blood.

“Having got the patient seated conveniently, introduce the probe into the nostril, and when you approach with the first mark towards the tip of the nose, cautiously endeavour to find the mouth of the tube, by directing the knob on the end of the probe outwards, and rather upwards, until it has entered the labia.

“Having entered the tube, observe the distance of the second mark, and proceed in the same cautious manner until it is in a line with the tip of the nose, and feeling no resistance made to the probe you may conclude that it has entered the tympanum.

“But beware of farther introduction; for by rashly pushing the probe into the tympanum, you might injure the mechanism of the ossicula auditus, which, besides putting your patient to great pain, would throw discredit on the operation.

“If you wish to inject tepid water into the tympanum, pro-

vide a slender silver catheter, which should not exceed in diameter from the point to the first mark, that of the diameter of the knob of the probe.

"It should gradually increase in size from the first mark, for about a quarter of an inch, in length, to the thickness of a crow quill, and then be of an equal diameter to the end. This equal portion of the catheter to be made with a male screw on the outside, to fit a round flat piece of silver with a female screw in its centre.

"This flat piece of silver, which has been called a frontlet, ought to have five or six holes in its edges, so that it may be secured in a proper position by means of a ribbon passed round the head and through two of the holes of the frontlet, the ends of the ribbon to be then brought backwards and tie behind.

"If the end of the catheter were made to fit the little silver syringe used in *Fistula Lachrymalis*, it would be both useful and economical.

"Introduce the catheter in the same manner as the probe, and when the point has entered about half an inch into the tube, screw on the frontlet close to the tip of the nose; fasten it with the ribbon, and then inject the water through it with the syringe. The water used ought to be distilled, and by this means the pus or mucus in the tympanum, will be held in solution, and be more easily evacuated than when precipitation takes place. It ought likewise to be heated to 94° Fahrenheit, but if a thermometer cannot be conveniently got, dip the hand into the water, and its temperature may be easily judged by the sensation produced on the back of the hand.

"After the operation a saline purgative ought to be given, and if considerable irritation arise, venesection with antiphlogistic regimen to be prescribed; and the patient confined to his room until all symptoms of inflammation have been subdued."

If, from some cause or other, the operation should not succeed, and there is reason to suppose that the closure of the tube is not permanent, but merely from tumefaction or stricture of the parts, arising from recent exposure to cold, the patient should be bled with leeches near the mastoid processes—take sulphate of magnesia in small doses, and afterwards be put on an alterative course, with blisters behind the ears. By perseverance in this course, the tumefaction will decrease—the probe may again be tried; and if adhesion has not taken place

to almost the length of the tube, it may, with care, be rendered pervious.

CHAP. II. *On Puncturing the Membrana Tympani.*

Our author supposes that the attempts to introduce the probe into the eustachian tube had repeatedly failed—that the patient is unable to inflate the membrana tympani—and remains deaf, or nearly so. The operation of puncturing the membrana tympani is then admissible.

“For this purpose the surgeon ought to have an instrument (which I have called a perforator) of the following description:—

“The blade to be about three inches in length, of a quadrangular shape for about a quarter of an inch near the point; the other parts of the blade round, and increasing a little in thickness.

“The sides of the quadrangular part to be ground equally and brought to a point; the shoulders of the edge, as they are called, to taper gradually, so as to be rather more than a line in length. The diameter of the quadrangular part should not exceed one fourth part of a line, but the rest of the blade, especially near its insertion into the handle, to be about two-thirds of a line in diameter.

“The handle to be octagonal, and made of mahogany stained black; about four inches in length, one line and a half in diameter near the blade, and increasing in thickness to about one line and two-thirds in diameter at the end.

“If the blade were shorter the handle would require to be proportionably advanced towards the meatus, which would almost block up the tube, or at least obscure the view of the membrane, so that the surgeon would have to operate under considerable disadvantages: whereas, when the blade is of the above length, it will be in his power to observe the progress of the point of the perforator, and to act accordingly.

“A room with a window fronting the south should be chosen for the place of operation; and the patient placed on a low seat, so that the rays of the sun may fall into the meatus.

“The Manubrium or handle of the malleus will then be distinctly seen pointing downwards and inwards; occupying the superior half of the membrana tympani.

“The surgeon being seated on a high chair, should lay his left hand on the head of the patient,* and with the right hand

* “The head of the patient ought likewise to be secured by an assistant.”

take hold of the instrument in the same manner as he would a pen when writing; he should then cautiously and steadily, enter the point of the perforator into the membrana tympani about half-way between the centre and its lower edge, and with the thumb and index finger give the instrument half a turn one way, and then half a turn the other, and in this manner gently push the point about a line through the membrane.

"The operation will be performed with greater precision if the surgeon bring the thumb and index finger of his left hand nearly over the meatus, and slightly grasp the perforator about the middle of the blade; by this means the point of the instrument will be kept steady, that is to say, from describing a circular evolution during the rotatory motion necessary to *this mode* of puncturing the membrana tympani."*

After this operation, our author recommends a saline purgative; and, if painful sensations are felt in the parts, venesection should be performed, confining the patient to his room, and keeping him on the most antiphlogistic regimen until the inflammatory symptoms are subdued, and the parts restored to healthy action.

Our author observes, that the *mode* of operating, in these cases, has been considered of little consequence, it being thought sufficient to introduce a sharp-pointed instrument through the membrana tympani, taking care to avoid injuring the ossicula auditus. Mr. B. remarks that from time to time, the deafness returns, requiring another and another operation, till, often, the membrana tympani is injured for ever. On examining the structure of this part, we find it of an oval shape, and muscular—the fibres running in a peculiar direction—from the circumference to the centre.

"Hence it is that when the operator thought he was *cutting*, he was only *separating* the fibres by the mechanical power of the instrument; and that the union which took place afterwards, was an effort of nature to restore the fibres to their original

* "If any objections are offered to this mode of operation, as being too complex and difficult to execute, owing to the unsteadiness of patients in general. The surgeon might then have a Perforator made of the same length and thickness as the above, but spear-pointed similar to a lancet; the shoulders not to exceed $\frac{1}{16}$ of an inch in breadth; the handle ivory with two or three black spots inserted, corresponding to the flat sides of the instrument. The operation might then be performed by a simple puncture, by the surgeon keeping the flat side of the Perforator opposite to the centre of the membrana tympani when he operates, and by this means the fibres will be cut across; but there will be more risk of the closure of the puncture than in the mode described above."

position and tone. To render this still more plain, let the muscle of a living animal be laid bare, and an incision made into it, in the direction of the fibres; and the parts afterwards left to nature.

"Adhesion will take place in almost every instance. But let a muscle in a similar situation be cut across, and the fibres will immediately *retract* to an extent corresponding to the size of the wound.

"The peculiarity of the mode of operation which I would recommend, is, to *drill* the preforation, and by means of the quadrangular point of the Perforator the fibres of the membrana tympani will be *cut across*—retraction take place—the wound assume an oval figure, and there will be less danger of a union of the parts taking place than in the common mode of operating by a simple puncture.*

"It is for this reason I have been so particular in describing the Perforator and the manner of using it, in order that an operation the mode of which has hitherto been accounted of little or no moment, but which is of the utmost importance to the patient,—should be performed in a manner agreeable to the true principles of surgery."†

ART. IX. *Transactions of the Associated Apothecaries and Surgeon-Apothecaries of England and Wales.* Vol. I. pp. 424, with plates, 1823.

Observations on Fractures of the Patella. By ROBERT PALK MOGRIDGE, Esq.

Practical Observations on Fractures of the Patella and of the Olecranon. By THOMAS ALCOCK, Member of the Royal College of Surgeons.

MR. MOGRIDGE being one day in one of the wards of St. Thomas's Hospital, a man was brought in with fracture of the patella. The dressers were proceeding to bandage it, on Sir

* "I have in several cases introduced the probe through the nostril and Eustachian tube into the tympanum, in the manner described in Chap. I. and likewise punctured the membrana tympani with a quadrangular Perforator similar to the above, with success. The patient belonged to the Hull Dispensary for Diseases of the Eye and Ear.

"I intend to lay the history of these cases before the public at some future opportunity."

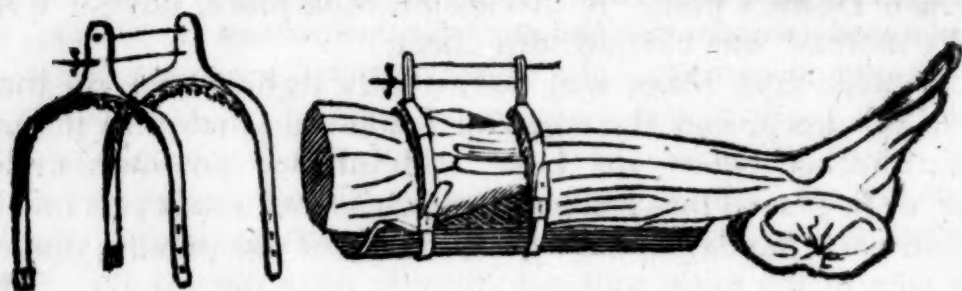
† *Medico-Chirurg. Review*, June 1824.

Everard Home's plan. A discussion took place, but Sir Everard's method was carried into effect.

"A wide tape roller was bound very tight round the limb above the knee, and the superior fractured portion of the patella; another below the knee, and inferior portion; under these were placed other slips of tape, coming about two inches beyond each bandage, one on each side of the patella, one on each side of the knee, and one directly over the patella. The upper ends of all these were turned down and pinned to the superior bandage, then the inferior ends were pulled upwards as tightly as possible, so as to bring the rollers as nearly together as practicable, and with them the separated portions of bone. At first view I perceived that this could not answer, for the bandages themselves were tighter than the patient could well bear, before the bracing of the slips; therefore, we may at once say, that the more insufferable, the better the effect of this plan. By this mode of reasoning I therefore concluded, that the plan was bad, as it afterwards turned out, for the patient could not bear the torture, so that the bandages were loosened continually, and thus the effect destroyed: he always complained of extreme coldness in the extremity, which is not to be wondered at when the circulation must be almost stopped, and so much pressure on the nerves."

Mr. M. now set about devising some better apparatus. He had heard Sir Astley Cooper remark in his lectures, that he did not doubt the possibility of osseous union of the fractured portions of patella, provided they could be held in contact for a certain time. In any instrument for this purpose, Mr. M. observes, there must be great pressure on the superior portion of the tibia and inferior portion of the femur, before the screw should act. The pressure on the ham too must be entirely done away with; for by preventing free circulation, the union is retarded.

"Both these difficulties I surmounted, by having a very thick splint made, so that the pressure should be on the calf of the leg and the thigh: by this arrangement the effect of the pressure becomes immediately reversed: it now does good, for, the more pressure you apply, the straighter the leg is brought, and without increase of pain. Having so far succeeded in obtaining the principles, I tried to apply them, and produced the instrument, of which I shall now give a description, accompanied necessarily by a sketch, together with the mode of its application.



“The part of this instrument which presses on the knee is of highly tempered steel, with a well and hard stuffed cushion underneath, the leather strap covering it above: into this are firmly riveted the upright pieces, through which the screw and guide pass. No instrument can be more simple. I have given no plan for the splint, as it is but a thick common one. The method of applying it is by unscrewing the thumb-screw to its extent, then getting the portions of fractured bone between the instrument; apply the splint as represented in the annexed figure, buckle the strap around the limb and splint as tight as possible, then with the thumb-screw bring the instrument together. I have applied it on my own leg until I have held the patella as tight as if it had been squeezed by a blacksmith’s vice. The great advantage of it is, that the patient wants no attendance after the first application, as he can tighten it himself, and I should think he can walk with it. The guide is absolutely necessary, as without it the screw could not work: it is merely a steel wire riveted at one end, and passing through a hole at the other: nothing but lengthening the upright, and forming a hinge as a pair of compasses, could be substituted, and this would be inconvenient from the length. Mr. Smith, an ingenious instrument maker, living in St. Saviour’s Church-yard, Borough, made this instrument under my direction; he has one at present in his possession.”

Mr. Alcock remarks that the serious evils attending fractures of the patella, when ossific union is not produced, and the discrepancy of opinion among eminent surgeons respecting the mode of treatment, render further investigation of the subject necessary. Mr. A.’s attention was drawn to this accident by a case that made a deep impression on his mind at the time.

“A man in an humble and laborious station in life, had suffered the common fracture of the patella, from which he had so far recovered as to resume his employment; but the union of the fractured portions of the patella was not by osseous

matter, but by a considerable extent of ligament; so that the broken ends were, after the cure (if cure it can be called,) far from being in contact. To those who have observed the effects of a ligamentous union after fracture of the patella, it need not be stated that this limb remained much weaker than before the accident, or than the opposite limb. One day, when carrying a load, he slipped; and laceration, or the tearing up of this ligament, occurred: he fell to the ground; and when the limb was examined, it was found that the ligament and the integuments adhering, were both torn across, exposing the cavity of the joint. The attempt to unite the torn edges of the wound did not succeed;—inflammation supervened;—amputation was subsequently performed; but it did not preserve the life of the sufferer.”

Our author witnessed another case nearly as distressing as the above. A female suffered fracture of the patella, which united by ligament. Some months afterwards the same accident happened to the other patella, with similar union. After a long confinement the poor creature was discharged, but unable to walk without crutches. We lately heard of a case with a very different result. A man had fracture of the patella, which united by ligament, and he went lame. Some time afterwards he fractured the other patella, after recovering from which he walked as well as ever he did in his life—greatly rejoiced at the second accident, which put both extremities on an even footing.

Mr. Alcock avers, that in his own practice, and that of others, he has seen many cases, where “perfect ossific union of the patella took place.” In a note, however, while alluding to the scepticism of some surgeons on this point, Mr. A. remarks that—“he is not anxious for the term (ossific union), and candidly states that he is indifferent by what name the union be designated, provided it is so perfect, that the injured part be equally strong and useful as before the fracture.”

If we examine a recent fracture of the patella we find, of course, that the lower portion remains *in situ*, being attached to *ligament*, while the upper portion is necessarily drawn up by the action of the large *muscles* inserted into it. To counteract this retraction, our author avers, that little more is necessary than bringing the leg in a right line with the thigh, and this last raised towards the front of the pelvis—or otherwise the pelvis bent forwards on the thigh. “In practice, says Mr. A. it will be found that this position nearly accomplishes the indication of keeping the broken ends of the bone

together; or at least renders the slightest force sufficient, when properly directed, to retain them steadily in contact."

"The muscles having been relaxed by the position above alluded to, let the surgeon compress the broken portions of the bone gently between his fingers and thumbs, using the fingers to one portion and the thumbs to the other, increasing the pressure until the upper portion be in perfect contact with, and apposition to the lower. Let him observe the extent of force which is necessary to effect this accurate apposition; and he will find, that a force equivalent to a few ounces in weight will suffice; if the relaxed position of the muscles have been well observed. Let those who may be of opinion that the aid of the mechanical powers is required to effect this simple purpose, examine well this part of the treatment, and if a doubt remain, rather remove the support of the fingers from the upper portion, and again observe how slight a force will suffice to bring it back to its natural position; for, in truth, no pain nor inconvenience will be experienced from any part of the treatment, unless the force used exceed the necessity of the case; and the patient, so far from complaining, will be more apt to express his satisfaction at the comfortable degree of support which either the hand, or the apparatus, subsequently supplying its place, affords him."

The following directions for the management of this fracture we shall give in Mr. Alcock's own words.

"The apparatus may be very simple: the writer has generally used strips of plaister of about an inch in breadth and a foot long, crossing obliquely from the integuments immediately above the patella to the upper and back part of the leg, the patella being within the angle formed by the crossing. This, he has believed, rendered the bandage and compress less liable to slip, but he does not consider the plaister essential. A moderate sized compress has been then placed immediately above the patella, the ends bending downwards on each side, so that the bandage has rested upon it, and has produced an equable and steady, though moderate compression, in a direction opposite to that of the extensor muscles; thereby counteracting any contraction which, under the previously detailed circumstances, they may be likely to exert. A narrow double-headed flannel bandage has been generally preferred, on account of its greater elasticity than linen or calico. A splint may or may not be placed in the ham. If the steadiness of the patient can be depended upon, the splint may be dispensed with;—if his

steadiness be doubtful, the splint had better be used. The bandage may be applied in any convenient manner, forming a sort of fulcrum by the use of pins whenever it becomes necessary to change the direction of the bandage, so as to make it bear particularly upon any required point. It is not likely that any one expert in the use of the roller, and having a clear idea of the object to be attained by its application, will fail in giving the necessary support where it is required. The bandage should not be so tight as to cause the leg to swell, otherwise the lower part must be also supported. There is an advantage in leaving the patella uncovered, as it enables the surgeon not merely to suppose that the ends of the bone are steadily supported in contact, but to assure himself of the fact, day by day, without disturbing the apparatus; unless any slipping of the bandage, or slight retraction of the upper portion of the bone, should render it necessary."

After the first few days it may be ascertained that slight flexion of the knee may be allowed, to relieve irksome feelings, without deranging the apposition of the bones. After this the patient may be allowed to move about upon crutches, supporting the injured limb in a broad sling passed over the shoulders. At the end of a month the foot may be put cautiously to the ground, but the knee is not to be bent.

From fracture of the patella the transition is natural to that of the olecranon. This last, however, is always the result of external injury. The mode of union is generally by ligament, elongated in proportion to the retraction of the broken portion of bone. "In this instance the power of extending the forearm is greatly diminished; whilst the natural support afforded by the extremity of the bone to prevent the too great extension of the forearm being lost, the forearm may, by external force, be carried backwards beyond the direct line of the humerus."

"Another mode of union takes place when the broken portion has not been kept sufficiently near to the part from which it has been separated; yet not so distant as to prevent ossific union. Consequently the extremity of the bone projects further than natural, the forearm cannot be fully extended, and considerable inconvenience and lameness result. When this mode of union occurs, there is frequently great irregularity and enlargement of the bone at the place where it has united."

The third and (according to our author) most desirable termination is when, by great care, a perfect osseous union is effected. This Mr. A. thinks may generally, if not always, be obtained.

“ It is obvious that the simple principles of practice in fracture of the olecranon are, to diminish the swelling which the violence necessary to produce fracture generally occasions ;—to guard against inflammation ;—to replace the fractured portion, and keep it steadily in its natural position ; to relax the muscle (the triceps) inserted into it ;—to prevent rigidity of the joint by appropriate exercise, as soon as the union becomes sufficiently firm to admit of it with safety ; &c.—but an ordinary example may supply the place of further detail.

“ Sept. 20, 1820. A young man, aged twenty, was thrown out of a gig, and fell upon his right elbow. His face and right hip were also injured. The swelling of the elbow was so great, as to prevent the examination by the touch being satisfactory ; although the inference was clear, from the manner in which the accident had occurred, and the extent of injury around the elbow, that the olecranon must have suffered fracture. Treatment—bleeding, both general and topical ; purging ; low diet, and cold applications to the injured parts ; to rest the arm.

“ Sept. 24. The swelling of the elbow was so much reduced as to admit the existence of fracture to be distinctly ascertained. The olecranon was broken off and drawn upwards. The fracture was reduced ; and the detached part kept down by compress, adhesive strips, and bandage ; the arm put in the extended position, and a hollowed splint placed in front of the elbow joint, to prevent accidental flexure.

“ Oct. 4. No pain. ‘ There is no crepitus now perceptible. The broken portion is perfectly in place, and resists the slight force which can be prudently used in examination.’

“ 6th. Arm firmer ;—bandage adjusted.—It is needless to state the daily progress. The olecranon united so perfectly in its natural place, that it required careful examination to distinguish it from that which had not been injured. For some time after leaving off the splint the motion of the joint was checked, no doubt from having been kept stationary in the extended position ; but by daily using, at first, passive flexion ; and afterwards, swinging the forearm with a small weight in the hand, the use of the joint was perfectly restored. Friction was combined with this exercise. He was perfectly well by the end of October.”

Some Observations on the Utility of Opium in Certain Inflammatory Disorders. By JOHN ARMSTRONG, M.D. Lecturer on the Principles and Practice of Physic.

A great deal of theoretical prejudice has obtained, and still obtains, respecting the physiological effects of opium on the human frame. Its action has been too generally and too strictly looked upon as stimulant, without taking into just consideration its other properties. Practitioners in the hotter regions of the earth, and especially in India, have long been in the habit of giving opium freely in acute diseases, and even in topical inflammation, after or in company with, venesection; and generally in combination with calomel. The utility of this practice has been long established, in those climates, and it is now making its way in this country, with some little variety in the modus.

Some years ago the illustrious author of the paper before us had his attention drawn to the subject in question, by observing a chasm or defect in the common modes of treating acute abdominal inflammation by the simple depletion of bleeding and purging. He had observed long before that period, that when opium was given *in full doses* immediately after copious depletion, the cases terminated successfully.

“Under this impression, I determined to administer opium in future more boldly, in those cases which appeared most promising for its favourable effects. Within the last four years, I have prescribed large doses of opium, conjointly with blood-letting, in at least a hundred cases of acute and sub-acute abdominal inflammation, proceeding from common causes; and as its efficacy has considerably exceeded that of any other remedy tried under similar circumstances, I shall endeavour to point out in this paper, first, those circumstances, and secondly, the most efficacious doses.”

The following symptomatic, or pathognomonic sketch we shall give in our author's own words.

“Acute inflammation of the peritoneal coat of the bowels is generally marked by a distinct pain in some part of their course, increased under pressure, and attended by a quick, small, hard pulse, a hurried respiration, a hot skin, a whitish moist tongue, flatulence, constipation; and nausea, retching, or vomiting occur, if not always at its commencement, at least during its progress. When this form of inflammation is seated in the peri-

toneal coat of the stomach, the symptoms are similar, except that the pain is limited, not to some part of the intestines, but to the epigastric region, while the pulse is smaller, and the vomiting usually urgent from the beginning. In acute peritonitis the pain is diffused over the abdomen, the pulse is fuller, the heat higher, and the stomach is seldom disturbed by nausea, retching, or vomiting, till towards the close of the disease. The uterus is rarely inflamed acutely, except after delivery, and the inflammation is denoted, then, by a hard circumscribed tumour in the hypogastric region, painful on pressure, and attended by much fever; but in such instances it frequently happens, that the peritoneum itself is inflamed, or the peritoneal coat of the intestines, and then the symptoms have a mixed character. In acute nephritis there is, on one or both sides of the loins, a distinct pain, increased by pressure applied forcibly there, and on the directly opposite side of the belly. More or less pain or retraction of one of the testes, scanty urine, and fever, are the concomitants. Many symptoms have been enumerated as pathognomonic of acute hepatitis, but the only one upon which I would rely is pain on pressure in the region of the liver, accompanied by fever; though the colour of the stools, urine, or skin, occasional chills, depression of spirits, and other signs, will unquestionably assist in the diagnosis."

In acute inflammation of the peritoneal coat of the stomach or bowels, Dr. A. makes it a rule to see the patient bled, in the first stage, to complete relaxation—approaching syncope, whatever may be the quantity necessary to produce this effect. As soon as ever the patient recovers from the faintness, three grains, at least, of good opium, in the form of a *soft* pill, are given, and quietude is strictly enjoined, so that, if possible, sleep may be obtained. In some irritable habits less of the solid, and some fluid opium are prescribed, in order that the anodyne and sedative effects may be more quickly produced.

"The effects of opium thus administered, are to prevent a subsequent increase in the force or frequency of the heart's action, and a return of the abdominal pain, while it induces a tendency to quiet sleep, and a copious perspiration over the whole surface. In many instances, this simple procedure will remove the inflammation at once, nothing being afterwards necessary, when the patient awakes, but spare diet, absolute rest and quietness, with an occasional mild laxative. But on all occasions, if possible, I visit the patient about three or four hours after the administration of the opium, and if there be pain on pressure in any part of the abdomen, with a hot skin,

and quick jerky pulse, I order the patient, in my presence, to be promptly bled again in the same decisive manner as before."

Our author properly observes that some physicians commit a great mistake by dictating on paper the quantity of blood to be drawn. We hope, for the honour of medical science, that this is now very rarely done—at least we have not seen any physician so absurd for some years past. Dr. A. is perfectly right in averring that "it is solely upon the *effect* produced that the benefit of blood-letting depends"—but we cannot entirely acquiesce in the remaining portion of the sentence—"and therefore the effect should always be witnessed by the physician." If the general practitioner who bleeds the patient were a mere phlebotomist, or a chemist's apprentice, we would say Dr. Armstrong was fully justified in the above precaution; but knowing, as we do, the education and the practical information diffused, in our days, among the general practitioners, we have no hesitation in avowing, that there is rarely much danger in trusting to the judgment of surgeon-apothecaries upon such occasions, since they are equally aware with the physician of the great importance attached to effectual depletion in the early stages of abdominal, and indeed of all acute inflammations.

After this second abstraction of blood carried again to complete relaxation, our excellent author generally prescribes about two grains of opium with three or four grains of calomel, exhibited in the form of a pill, as the faintness disappears. The patient is again left in perfect quietness, and refreshing sleep with free perspiration most frequently succeeds. A third venesection is rarely requisite; but if, after the expiration of five or six hours from the second, pain and fever still exist, the operation should again be performed as before; and one grain of opium with two or three grains of calomel given almost immediately afterwards—while half a grain of opium and two of calomel may be repeated every four hours till sleep and general perspiration be induced.

"It is repeatedly observed in my works, and the observation was made long before their appearance, that the specific effects of mercury are easily procured when large quantities of blood are abstracted under its administration. For this reason, the calomel should be given with proportionate care, whenever copious and repeated blood-letting becomes necessary."

The above plan, with the exception of giving a large dose of opium alone, after the first bleeding, is nearly that which

we have ourselves pursued for twenty years past, and which has been pursued by most tropical practitioners. Dr. Armstrong's modification of it we think a decided improvement, from some trials which we have lately made, and therefore we recommend it to the consideration of our professional brethren.

Dr. A. observes, that when the cure has been left entirely to his own management, he has never found it necessary to bleed more than thrice, in the most severe examples of acute inflammation; though now and then the additional aid of leeches to the abdomen has been deemed expedient. We may just remark, *en passant*, that we do not quite agree with our able author on the point of local blood-letting. We attach more importance to this measure than Dr. A. seems to do. We have often found, that when the vascular action was brought down by the venesection carried to syncope, the slow but steady drain from twenty or thirty leech bites *kept down* the excitement, and thus prevented the necessity for further venesection.

On the subject of purgatives, every practitioners of observation must agree with Dr. Armstrong. The best way to open the bowels is by bleeding. Constipation is not the cause but the effect of the inflammation, and to remove the cause is the first object. A discharge from the bowels very frequently follows the bleeding; and if not, the bowels are easily opened when the inflammatory tension is taken off the peritoneal covering. Large glysters of warm water, however, are always proper for the purpose of removing accumulated fæces from the colon, and inviting discharges from the upper intestines.

“Large and repeated doses of opium tend to lock up the secretion of the liver, and therefore, in acute hepatitis, they should rarely be repeated beyond the second time, being always premised by venesection, and always conjoined with calomel. Moreover, saline purgatives should be freely employed from the beginning, and if any traces of inflammation should be left, in despite of active evacuations, the mouth ought to be affected by mercurials. A similar plan may be pursued in common peritonitis and nephritis. In the first and subsequent editions of the Illustrations of Typhus and other febrile Diseases, a striking case of the latter is detailed, in which full doses of opium, united with calomel, succeeded even when copious venesection had failed; and I may here add, that I have since witnessed some cases of inflammation of the bowels, where full doses of opium finally effected the cure, after bleed-

ing and purging had completely disappointed my expectations. So great indeed is my confidence in full doses of opium in peritoneal enteritis, that if compelled to say, supposing myself the subject of the disorder, whether I would exclusively rely upon them solely, or upon blood-letting solely, I should certainly fix upon the former; at the same time I should like to have the simultaneous influence of both remedies, being convinced, that they are far more serviceable combinedly, than separately employed."

Dr. A. sometimes gives larger doses of the opium than above stated, but never beyond five grains. He remarks that, in some instances, where all signs of abdominal inflammation have subsided, the pulse continues considerably quicker than natural, and a simple fever ensues. So long as this fever lasts the patient must be kept in bed, the diet must be spare, the bowels kept open, an opiate administered at bed-time. Our author has discarded from his practice "the employment of such medicines as digitalis, prussic acid, and tartarized antimony, in the beginning of acute inflammations." The advantage of tartarized antimony as an auxiliary to the lancet and opium will, we believe, be acknowledged by most practitioners who have attentively watched the operation of the remedy. At the same time it is proper to remark that antimony is far less applicable to inflammations of the abdominal than of the thoracic viscera, on account of the gastric irritability so commonly attendant on the *former* class of complaints.

"As soon as I had satisfactorily ascertained the combined efficacy of blood-letting and opium in acute abdominal inflammations, I mentioned the results of my experience privately and publicly in the metropolis. Several practitioners have tried this treatment, and, so far as I have yet heard, found it similarly beneficial. It has now been employed extensively by myself and others in those acute forms of abdominal inflammation which so often follow delivery, and in which it has been more uniformly efficacious than any other. The great peculiarity of acute abdominal inflammation in the puerperal state is, that it runs a more rapid course than ordinary, and therefore requires to be more promptly subdued. Though in the country my success was considerable in what is vaguely called puerperal fever, yet under the same treatment in London, namely, bleeding and purging, I am fully persuaded that a great many patients would have been lost. Women are much more irritable in London than in the country, probably on account of their more sedentary and artificial habits; and

by consequence they are much more liable to that reaction of the heart and general irritation, which are so apt to follow copious bleeding in them, and which appear to renew the inflammation when allowed to advance, but which may almost invariably be controlled, by full doses of opium given at the precise juncture before mentioned."

We fear, from recent facts, that puerperal fever has resisted this and every other mode of treatment with as much obstinacy as at any former period of its history.

Dr. A. observes, that as opium has a specific effect on the vessels of the head, great care is necessary in its exhibition, when the brain is affected. A moist tongue, Dr. A. conceives, is essential to the good effects of opium—"and therefore, in specific fevers, such as typhus, where the tongue is dried and glazed, it always does harm instead of good, even where abdominal inflammation is present." The only cases where our author has known opium beneficial while the tongue was dry, were those which had been preceded by copious hæmorrhage, and certainly in many of these it has (he avers) apparently saved the patient by allaying the existing irritation, and preventing the occurrence of that violent reaction of the heart, by which the hæmorrhage is so liable to be renewed.

"In several cases of acute inflammation of the pericardium, of the pleura, and of the substance of the lungs, I have tried the large doses of opium after copious venesection, with similar benefit as in the acute abdominal inflammation before mentioned; but it is a practice which I would not be understood to recommend in inflammation of the mucous membrane of the bronchia, an affection which requires, in many instances, the greatest circumspection as to blood-letting, and in which those measures which act simultaneously on the bowels and on the skin are singularly useful. Where the heat on the surface is universally high in bronchitis, and the pulse at the same time expanded and resisting, I have found moderate venesection very serviceable; but when the heat is subdued, and the pulse small and compressible, I have generally avoided it altogether, and trusted to the forementioned means, with an antiphlogistic diet, and a regulated temperature. One of the leading advantages of what might be called anatomical physiology is the ascertainment of the different structures and functions of adjacent parts; and another of the leading advantages of what might be called anatomical pathology is the different results which are displayed, by an accurate examination of those parts after death. But minute observation of the rise, progress, and

decline of the symptoms, together with an exact register of the effects of remedies at these different periods, are still necessary to enable us to turn our anatomical physiology, and our anatomical pathology to great practical account. It appears to me, that the French, generally speaking, excel the English in anatomical physiology, and in anatomical pathology; but it also appears to me equally certain, that they have not observed either the symptoms or the effects of remedies so accurately as we have done, and the English therefore really excel them in the precise application of remedies. But this remark is only referable to those physicians in this country, who observing and thinking for themselves, merely deem symptoms the indications of disease, and strive to connect them, as closely as possible, with the condition of different parts of the body upon which they depend; for it must be admitted, those practitioners who still pursue the nosological method of affixing to certain symptoms an abstract name without a knowledge of the condition with which they are connected,—it must, I repeat, be admitted that the practice of such men is mere empiricism, similar to that which the public passively adopt and dangerously apply from tradition.”

Our author has found full doses of opium after copious blood-letting, cut short inflammation of the mucous membrane of the intestines.

“Sub-acute inflammation of the mucous membrane, especially of that portion which invests the small intestines, is exceedingly common as an original infection in this country, both among children and adults. It is generally denoted by an obscure pain in some part of the abdomen increased under pressure, and accompanied by a quick soft pulse, a hottish skin, a slightly furred tongue remarkably red at the top, and a short way thence round the edges; while the stools from an increased mixture of mucus, most frequently have an oleaginous sort of consistence, and are somewhat darker and more offensive than natural. In the London Fever Hospital I have had a great many opportunities of pointing out this particular form of inflammation to my pupils, and also of shewing the great efficacy of small or moderate doses of calomel conjoined with a few grains of rhubarb, and assisted by a little cold-drawn castor oil. The French pathologists have overlooked the general connexion which a disordered state of the liver has with sub-acute inflammation of the mucous membrane of the intestines. Wherever this connexion exists, small or moderate doses of calomel, united with mild laxatives, will be found highly useful, seemingly by gently dislodging the morbid ac-

cumulations in the bowels, and particularly by increasing a flow of bile, from which, probably, the blood finds a readier access through the liver, and thus influences the circulation of the splenic, the superior and inferior mesenteric veins, and their ramifications. In all cases, however, of this complicated nature, I have applied leeches to the abdomen, and repeated them as long as there was any pain on pressure; and experience has taught me that they may be employed preferably to general blood-letting in most sub-acute inflammations of the mucous membrane of the bowels. In such examples, the blandest and sparest diet is necessary, for any deviation in that respect is apt to maintain the inflammation, in defiance of the best remedies."

Case of blighted Ovum. By J. HAYES, Member of the Royal College of Surgeons.

In her fourth pregnancy Mrs. H—— engaged the professional services of our author for her next accouchement. This was about the middle of utero-gestation. In a fortnight afterwards he was sent for, and found the lady complaining of pain at the bottom of the belly, extending down the thighs, having some coloured discharge from the vagina, and being much agitated in mind. She had been frightened. Quietude, venesection—an aperient—afterwards an anodyne. Next day the discharge had nearly ceased—the pain much alleviated—and she was altogether better. Quietude in bed prescribed. Third day. Had felt an unusual coldness and sense of weight in the belly, and also a severe shivering fit, which lasted half an hour, but was not succeeded by correspondent reaction. She quite recovered in a few days. Three weeks afterwards she quickened. At the expiration of 18 weeks our author was summoned, and found her in labour. In fourteen hours she was delivered of a fine healthy child. The abdomen was so much diminished after the birth of the child that our author entertained no suspicion of any thing remaining in the uterus besides the secundines, which were expelled half an hour afterwards, when the womb appeared to have contracted to the usual size. Half an hour after this a blighted fœtus, of about four months, dark in hue and fetid in smell, presented itself and came away, together with a putrid placenta.

"On reviewing the circumstances of this case, I must observe, that whatever may be inferred from some extraordinary accounts on record, no aid to the doctrine of superfœtation is derivable from this instance; and I think there can be no doubt

that the exertion and fright before mentioned, occasioning the pain and other symptoms, produced also the partial separation of the less vascular perhaps, or more slightly attached placenta, and, through that medium, the death of the smaller and less vigorous fœtus; an event marked by the rigor, coldness within the belly, and sense of weight above spoken of."

The practical inference, our author observes, to be drawn from this case, appears to be that where, at any period of pregnancy, there have been symptoms of abortion, although they have perfectly subsided, the accoucheur should, during parturition, bear in mind the possibility of there being a dead as well as a living child, and consequently institute a more rigorous examination than, at the time alluded to, he had believed to be necessary.

ART. X. *New-York Medical Repository*, for Feb. 1824.
No. III. Vol. VIII.

ANDREWS on *Cynanche Trachealis*.

SPEAKING of the exhibition of emetics, Dr. Andrews states that he thinks it necessary to repeat them every three or four hours, to prevent the formation of the membrane; as the paroxysm is very liable to recur, the practice is certainly valuable, particularly as it generally gains strength during its insidious remissions. By placing the ear near the patient, a slight whistling sound always denotes a return of the complaint, an observation which demonstrates the expediency of a trial of the stethoscope. The *sanguinaria canadensis*, or blood root, was tried with good effect, but it must be accompanied with venesection, which alleviates the distress; next to be followed by means, such as seneca and squill, which produce a perspiration, and convert the tight whistling sound of the respiration into a loud rattling, as if there was a large collection of phlegm in the trachea: as soon as this rattling appeared, the repetition of the emetic of the blood root evacuated large quantities of viscid phlegm, with bloody matter and films, resembling portions of membrane, and then the patient recovered. Where the breathing is tight, the blood root at the first dose rarely gives relief. The combination of venesection and sudorifics is necessary to assist its operation.

Tartar emetic has been given in rheumatism in the New-York state prison, in the dose of one gr. every fifteen minutes,

so as to take in the space of 18 hours 30 grs. of that medicine. In another case 358 grs. were given in nine days with complete relief. This plan has been tried in Italy with great success.

The remaining articles in this Number (excepting the Reviews) contain nothing original, new, or important to be known.

ART. XI. *New-York Medical Repository, for Aug. 1824.*
No. IV. Vol. VIII.

THE following case of *lepra nigricans* is the only original observation worth extracting from this number. The patient was an English emigrant, of intemperate habits. The disease presented the following symptoms :

“The whole surface of the body was covered with red shining elevations of the skin ; on the top of these elevations were soon formed brown scales, which as they formed became flattened, while their bases enlarged ; these scales were gradually covered by successive laminæ, which continued to increase until they assumed the size and extent of a crown piece ; this appearance was at first confined to the extremities, in a short time it extended to the body, which became similarly affected.”

She was first treated by her physicians for scurvy ; then for syphilis, and grew worse ; the quantity of mercury exhibited was very considerable ; the body, neck and extremities presented one surface of excoriation, discharging a fœtid sanies. The disease, at length ascertained to be the *lepra nigricans*, was treated by a liberal nutritious diet, a decoction of the Peruvian bark and sarsaparilla, with tart. of antimony, and also by the muriate of mercury applied in the form of a mild lotion. The general health and the sores improved, and the cure was completed by a gentle salivation excited by calomel administered with small doses of *cicuta* and *digitalis*.

The Monthly Chronicle of Medicine and Surgery which has just appeared in New-York, as also the Monthly Journal of Medicine, at Hartford, furnish no original matter, worthy of extraction, not already given in this or other numbers.

ART. XII.—*The New-York Medical and Physical Journal*, for April, May, and June, 1824.

Observations on Bronchocele or Goitre. By ALEXANDER CVENTRY, M.D. President of the Medical Society of the State of New-York.

THE disease, Dr. C. conjectures, had its origin from drinking water impregnated with alum; of this he gives no positive proof. He cured it by the muriate of soda, worn round the neck, in two instances. In other cases, Saratoga water, blisters, and mercurial plasters succeeded.

Cases of Amenorrhœa successfully treated by Injections of Aqua Ammonia. By JOHN W. GLONINGER, M.D. Pennsylvania.

The aqua ammoniæ in the proportion of ten drops to an oz. of warm milk exhibited by injection into the vagina four times a day, cured the disease in eighteen days.*

An account of the Small-pox which occurred in the City of New-York, in the Winter and Spring of 1823-4. By JOHN BELL, M.D. one of the Physicians of the New-York Dispensary.

"It is important that we should be able to form a just estimate of the value of vaccination. From the cases detailed, and from numerous others, which came under my care, the following conclusions seem to me the most important, as well as the best founded.

1st. Vaccination acts as a complete preservative to a very great proportion of those exposed to the contagion of the small-pox.

2d. It slightly modifies the access of small-pox, rendering the attack somewhat milder, although the stomach and respiratory organs are more often affected than in its ordinary course.

3d. It possesses a controlling power over the progress of inflammation in the eruption, shortens its course, in the ma-

* The historical sketch of Neurology, by Frederick G. King, M.D. of New-York, contains nothing new; the account of the yellow fever in the Island of Ascension revives the interminable question of the contagious nature of that disease. Duffy on Blisters communicates nothing new. The Anatomy and Physiology of the Siren Lacertina, and Dr. Greenhow's Galvanic Apparatus are without our limits. The galvanic experiments on the body of Johnson were published in our last number.

majority of cases, prevents it going on to maturation, and in almost every instance obviates the occurrence of secondary fever.

4th. It takes away *nearly* all danger of a fatal termination."

Dr. M'Neven, Professor of Chemistry, in a note following this paper, states that he has produced the varioloid disease from the genuine small-pox by inoculation, and adduces a case in proof of it: another proof of the same fact is given by Dr. Bell of New-York.

A Case of Hydrocephalus. By J. SMYTH ROGERS, M.D. of N. York.

This case was cured by bleeding, blistering, purging with calomel and rhubarb, assisted by the oil of croton tiglium: it possessed the characters of inflammation of the brain. Dr. Cheyne refers cases of this nature to a diseased state of the bowels, and remarks that it is frequently cured by purgative medicines; a fact now pretty generally known. The author has given no proofs of the existence of water in that organ. The number concludes with reviews and medical intelligence, much of which we gave in our last number.

ART. XIII. *The New-England Journal of Medicine and Surgery*, for July 1824.

THE first paper by Dr. Knight on the functions of the absorbent system is historical, and contains nothing new.

An apparatus for treating fractures of the thigh, by Luke Howe, M.D. is then given, of which we extract the following account in his own words:

"As the ancient surgeons were not ignorant of the advantages of extension, in the treatment of fractures of the thigh bone, it is not unlikely, that so simple a method as suspending a weight from the limb to prevent its shortening, was one of the first, which was tried by them. But we have no history of such extension being made in connection with counter-extension, in such a manner as would promise success. It was stated by Desault, that 'a continued effort equal to 10 will soon perform what could not be effected by a temporary exertion equal to 100.' To permanently secure the advantages of this '*continued effort*' is the principal object, calculated to be effected by the apparatus which I am about to propose. But as we do not find, among the numerous contrivances that have

been put in practice for the permanent extension of a fractured femur, one, which does not fail to fulfil some important indication, I have not the vanity to expect, that mine, should it be honoured with a trial from other hands, will share any better fate than those which have been invented, tried, and laid aside. Believing it, however, to possess most of the qualities, from which we should expect success, without being myself able to discover any material objection to its use, I will leave the decision of its real merits to the better judgment and experience of others.

The apparatus is composed of a pulley on a staff, eight or ten inches long, to be screwed on the foot-piece of the bedstead; a gaiter for the ankle of leather or cloth, on the bottom of which are sewed four straps, to be tied about four inches from the foot; into the loop of which a cord is to be tied, which with a weight attached to the other end, is to be carried over the pulley; by which means extension is to be made in the direction of the axis of the limb. A counter-extending band, to be passed over the groin and ischium, and tied on the side midway between the spine of the ilium and shoulder; to this a strap is to be connected, to be tied to the head board; a waistband or bandage, to be buttoned or screwed on the pelvis, to which is to be connected a thigh-strap for one or both thighs, having some resemblance to the T bandage; to this waistband, on each side, is to be connected a bandage or tape to be tied to the side pieces of the bedstead.

It is well known, that the greatest inconvenience, in the various machinery for permanent extension, arises from the excoriation of the parts, to which the force of extension and counter-extension is applied. To avoid this, and to counteract the tendency of the body to push the superior fragment over the inferior, the foot of the bed is to be raised from four to eight inches, according to the extension necessary to be made. The groin and ischium is to be further defended from irritation by soft folds of cloth, over which the counter-extending band is applied. The ankle will be defended from this evil, by well quilted cotton battings, before the application of the gaiter.

When this apparatus is properly applied, splints will not be found indispensable; yet it would be well to use them of convenient length over proper compresses and cushions, also the many tailed bandage or bandage of strips. Thin pillows should be placed under the whole length of the limb, brought up on each side, and secured by tapes. To prevent the rotation of the limb by the pressure of the bed clothes, three pieces of

board are to be made into the form of a cradle, without the bottom, and placed on the sides of the foot and leg, including the pillows and other compresses; a cleft must be sawed into the footpiece to admit the passage of the extending cord.

By this contrivance, extension is made in a simple, and at the same time a gradual and effectual manner, and from the greatest distance from the fracture; while the parts, on which the opposite forces act, are secured from irritation. Counter-extension is divided between the inclination of the body towards the head of the bed, and the counter-extending band; and this may be regulated to the inclination and comfort of the patient; not however to depend on one of these means alone, as the force of counter-extension by the operation of both, is more in the direction of the axis of the limb, than that of either alone would be; they also co-operate in preventing any injurious inclinations or motions of the body and pelvis. The side straps, or tapes with the waistband, will effectually prevent the lateral and rotatory motions of the pelvis; but they will not often be found necessary. The head and shoulders may be raised on pillows according to the pleasure of the patient. By a rope attached to the wall over his bed, he can raise his body with less disturbance to the fracture of the body of the os femoris, and the leg, than in the confinement of any other apparatus; for in raising and lowering the body a slight motion downwards and upwards are given to the extremities; but 'the continued effort' of the suspended weight to accommodate itself to this motion, prevents any over-lappings of the fracture, or unnecessary extension.

In making the reduction, a small weight, in proportion to the age of the patient and the irritability of the injured parts, is to be suspended over the pulley; and this weight may be gradually increased, as the muscles become less disposed to react, till co-aptation of the fracture takes place; during this time fomentation or friction may conveniently be applied to aid in producing this effect. When the inflammation of the muscles has subsided, and they, by their gradual extension, as Boyer observes, 'have no other tendency to shorten themselves, than that which arises from their elasticity,' the weight is to be diminished, leaving only enough to antagonize them; it would also add to the patient's comfort, when he lies without motion, occasionally to place under the weight some convenient support.

Last October, I made a trial of the operations of this apparatus. Nathan Walker, aged 12 years, by the upsetting of a cart, in which he was riding, received an oblique fracture of

the thigh-bone near its middle. A reduction was made of the fracture, and the limb placed on the double inclined plane, according to the directions of Charles Bell. Inflammation and a gradual shortening of the limb soon followed. Repeated attempts were made, in the usual way, to effect the desired extension, but this produced so much pain in the leg, and uneasiness without effecting the object, that this apparatus was abandoned, when the thigh was found to have shortened nearly two inches. Fomentation being first used on the thigh and knee, the limb was extended; and the apparatus of the pulley was applied in the manner above described. The weight of four pounds was suspended on the first day; on the second it was increased to eight, when by a little more force being added to the cord, the limb was brought to its natural length; on the third day the weight was reduced to six pounds, which was continued to the 26th of the fracture; at this time a re-union appeared to have taken place, and extension was discontinued. His limb was slightly flexed over pillows, in which situation he remained eight days longer, when he was permitted to leave his bed. He rapidly recovered the use of his limbs without the least shortening or deformity.

In a few hours after the adjustment of this apparatus, the inflammation, and especially the pain which were before considerable, almost entirely subsided. This effect was, undoubtedly, produced by the removal of the cause of irritation in bringing and retaining the fragments of the fracture in apposition; and by the elevation of the limbs, *determining the blood to other parts*. This is the effect of the '*position*,' which Dr. Gibson so justly advocates; he ascribes to Dr. Physick 'the merit of having established it upon the firmest basis.'

Seven weeks since, Mrs. Underwood, aged 74 years, of infirm health, while walking or rather tottering a few steps from her bed, fell and fractured the neck of the thigh-bone. During the first week, the prospect of her recovery was not sufficient to justify any permanent extension of the limb. On the eighth day, I was induced to apply the above apparatus; which was done as in the above case, excepting the gaiter was composed of cloth and cotton battings well quilted. This was applied to the ankle and secured, over soft compresses of the latter material; the foot of the bed was raised so as to depend, for counter-extension, principally, on the weight of the body; and some additions were made to the machine, by which the extension could be more conveniently graduated. By these means the limb was kept sufficiently extended, without any injury to the parts, to which extension and counter-extension were ap-

plied. But in consequence of her extreme emaciation, a considerable ulceration of her back and sacrum was discovered to have taken place on the 28th day ; when, there being no prospect of a reunion of the fracture with her declining health, all means of extension were removed. Since that time, her limb has shortened above two inches, and the removal of the apparatus has made her situation but little more comfortable.

Although a cure could not be effected in this case by this apparatus, or any other, yet the experiment proves, that permanent extension may be effectually made by a proper application of the apparatus, in all cases, at least, where there are sufficient health and constitution to produce a consolidation of the fracture.

Jaffrey, N. H. May 29, 1824."

The next paper details a successful case of extraction of a bean from the trachea by bronchotomy, similar to those in the January number of this year, by Dr. Jameson and others. Dr. Hale in the following essay, containing cases of sore-throat and fever, attributes the origin of this disease, in several instances, to the fœtid sanies which issued from an extensive burn. The disease occurred in the medical attendants, and several members of the family.

Dr. Th. W. Harris describes, in the next paper, four native species of *Cantharides*, which are useful as medical agents.

SPECIES I.—*CANTHARIS VITTATA. Striped Cantharis.*

"Elytra black, with a yellow fillet and margin.

Head light red, with two vertical spots and the antennæ black : thorax black, with three yellow lines : elytra (or wing case) black, with a central longitudinal fillet and the whole margin yellow : abdomen and legs black, and covered with a cinereous down. Length six lines.

Inhabits North America : upon the potato (*Solanum tuberosum*) eating and destroying the leaves.

As early as the year 1781 this American insect was described in Europe by Fabricius. It was not, however, brought into notice here until the accidental discovery of its medicinal properties by Dr. Isaac Chapman, of Buck's county, Pennsylvania. In 1797 he first employed it for the purpose of producing vesication, and published a description of it, with the results of his experiments, in the New-York Medical Repository. From this account it appears that, in seven cases, he employed successively all parts of these insects with the same results ; and

he considers them more certain as vesicatories than the cantharides of the shops.

SPECIES II.—CANTHARIS CINEREA. *Ash-coloured Cantharis.*

Body black, covered with a cinereous down.

All parts of the body and elytra are entirely covered with an ashen coloured down, extremely short and dense, concealing beneath it the black colour of the insect. The antennæ are black; the first and second joints, in the male, very large: male less than the female: resembles *C. vittata* in figure and magnitude.

Inhabits North America; feeds on the leaves of the Potato, English Bean, (*Vicia faba*) and Indigo weed (*Podalyria tinctoria*.)

This species of *Cantharis* is to us by far the most important, from its greater abundance and constancy of appearance; from the long experience the faculty have had of its efficacy; and from its having been the subject of a communication made to the Medical Society of Massachusetts by Dr. John Gorham, in 1808. From this interesting communication we learn that, for several years previous, Dr. Israel Allen of Sterling, Massachusetts, had successfully used as a vesicatory an insect found upon the potato vine. Dr. Gorham obtained a quantity of these insects, and, by extensive experiments, established the characters which had been given them.

SPECIES III.—CANTHARIS MARGINATA. *Bordered Cantharis.*

Black, with the margins of the elytra ash-coloured.

Head, thorax, and abdomen black, but nearly covered with an ash-coloured down: Elytra black, with the margin and suture ash-coloured: upper part of the abdomen, under the wings, marked with two longitudinal streaks of a bright clay colour. Nearly double the size of *C. vittata*, and unlike it in figure. Male less than the female.

Inhabits North America upon the *Clematis*; and is also found in Africa, at the Cape of Good Hope.

In 1799 Prof. Woodhouse, of Philadelphia, discovered this and the fourth species; and, having ascertained that they possessed vesicating powers, he made known this discovery to Dr. Mitchell, by a letter, which was published in the third volume of the New-York Medical Repository. The insect under consideration he proposed to call *Meloë clematidis*,* from

* Pallas gave this name to another insect found by him in Siberia.

its being particularly fond of several species of this plant. Fabricius, however, had previously described it, as a native of the Cape of Good Hope, by the name of *Lytta Marginata*. Dr. Barton says that this insect is one of the most active species of American blistering flies; and that it feeds upon the leaves of *Clematis crispa*, and *C. viorna*. This observation led me to look for it upon *C. virginiana*, which grows in profusion on the banks of the Neponset; nor was I disappointed in the search; for, about the first of August, when the vine was in flower, I procured enough of these insects to enable me to make trial of their powers, which proved to be fully equal to those of any species of cantharis, hitherto employed for vesication.

SPECIES IV.--CANTHARIS ATRATA. *Black Cantharis.*

Entirely black, immaculate.

In general contour this species resembles *C. marginata*, but is not more than one-third as large; the female also, as in that species, much exceeds the male in size.

Inhabits Barbary; and, in North America, on the *Solidago*.

This, as before observed, was one of the native blistering flies described by Prof. Woodhouse in 1799. Melsheimer appears to be unacquainted with its vesicating properties, but alludes to those of the three former species of this genus.

This insect has received various names from different authors, and is described three several times, with as many distinct appellations, by Gmelin, in his edition of the *Systema Naturæ*. In Boston it is kept and sold for *Cantharis vittata*.

It is common every year on the golden-rod, *Solidago altissima*, sometimes on *Solidago lanceolata*; and, according to Prof. Woodhouse, on the Self-heal, *Prunella vulgaris*, and the stick-weed, *Ambrosia trifida*. Dr. Thacher informs me that it is found on the potato-vine, in Plymouth county; from whence, I believe, the Boston apothecaries have been supplied. I have myself seen them, occasionally feeding on the potato-vine."

Some valuable Reviews and Medical Intelligence, relating to institutions and new books, &c. close the number.

ART. XIV. *The Philadelphia Journal of the Medical and Physical Sciences, for August, 1824.**

FISHER on the Medicinal Leech.

LEECHES applied to the labia pudendi proved more useful in amenorrhœa, than any other remedy: the following observations will be found valuable as to their application.

“In all cases in which we find it expedient to use leeches, the part to which they are to be applied should first be cleansed and then wiped dry, and a little sweet cream or sugar and water, or what is still better, fresh blood rubbed on the part. The leeches are then to be placed in a small cup not more than an inch in depth, and inverted over the part—after it has remained so for a few minutes, it is to be removed to see if they have all taken hold, taking away those that have not. If the leeches in the cup should not stick readily, the application of warm water in a sponge over the cup, will cause them to stick more readily. By repeating this several times we shall sufficiently succeed. The leeches having satisfied their voracious appetite, they let go their hold, and are then to be removed. If the number employed should not draw an adequate quantity of blood, cloths wet with warm water are to be put over the parts, by which means the orifices may be kept open, and the blood made to flow freely.

The expense attendant on the use of leeches is much increased, from the want of knowledge of the best mode of unloading them after they have been once used. On this greatly depends the life of the animal.

It was formerly the practice to sprinkle salt on their bodies. This sickened them, or produced violent contractions of their bodies, and thus they were forced to expel only a portion of the blood they contained. But the effect of the salt is so great that their lives are destroyed in many instances. As a substitute, vinegar has been proposed, which, however, is equally objectionable.

* The general views of Serres on his New Division of Apoplexies have been before given—the translated paper on the minute anatomy of the bones by Scarpa is not sufficiently practical to interest our readers. The amount of his doctrine is, that their structure is reticular or cellular, and is not composed of corrugated lamina united by a quadruple row of hooks, nor of fibres and layers joined so as to have their strata intermingled as has been supposed. Dr. Bell's paper on Baths and Mineral waters, though highly creditable, is too little the result of recent observation to be analyzed. Nearly one half of the Essay is occupied with the ancient and modern history of the subject.

ed, informs us, that 'it consisted of one large and one small globule, connected together by a thread, or thin bar, of the same material, and resembled a double-headed shot.'"

Its proprieties were as follows :

"It was put into an agate mortar, pressed and struck with considerable force—finding it yielded without breaking, and observing that it received a polish, it was examined and found to resemble iron. To confirm the analogy, it was next tried with a file, which acted upon it as it would on soft steel or iron—after this it was subjected to a magnet, to which it readily attached itself—and lastly, with a hammer : by its great malleability, conjoined with the characters just mentioned, it proved its identity with iron.'

He moreover states, that the substance in question was attacked by nitric acid, and afterwards was chiefly taken up by muriatic acid, whence an hydrated peroxide of iron was precipitated by ammonia.

On reading this account of the substance examined by Mr. Vanuxem, it was evident to me that it had not the slightest resemblance to those which Professor Silliman had described as fused carbon. A product which I had myself obtained, and which corresponded perfectly with his description, had been preserved in a glass tube. This substance crumbled, when subjected to pressure—acquired no polish by hammering or filing—was utterly devoid of attraction for the magnet—was not acted upon by nitric acid—nor did muriatic acid, which had been digested on it, yield any oxide of iron, or give any other indication of that metal.

These observations were made by my friend Mr. G. T. Bowen, under my inspection. Mr. Bowen assisted Professor Silliman at the time when he first made his observations on the fusion of carbon, and on perusing Mr. Vanuxem's memoir, Mr. Bowen was no less convinced than myself, that there had been a mistake."

DR. CHAPMAN on *Epidemics*.

This is a valuable and elegantly written Essay. After giving a sketch of the ancient literature of the subject he ascribes the production of this terrible class of diseases to heat—cold—moisture and dryness, to an argillaceous soil covered by woods, &c. The properties of miasmata in various points of view are then detailed, as, the necessity of an elevated temperature for their production—the influence of rain by covering the sources of putrefaction in arresting them—the effect of wet seasons in tropical latitudes in favouring animal and vegetable

decomposition, from which they originate—the distance to which miasmata may be borne and produce disease; according to some authors half a mile, to others eight or ten miles. The effect of the removal of dwellings to some distance above the surface, in preventing their evil influence—the supposed agency of woods in arresting their progress—the period of attack after the patient has been exposed to the miasmata varying from a few hours to some weeks. The deposition of these noxious agents in the dew is also mentioned as contributing to the production of fevers—the effect of habit and acclimation in lessening their noxious qualities is noticed; and finally, the production of disease by exhalations eliminated by turning up the soil. The Essay is replete with facts by which these various positions are supported, and is extremely interesting.

An Operation of Tracheotomy. By HENRY S. WATERHOUSE, M.D.
of Franklin County, New-York.

“Within a few months, I have been informed of three cases in which death was produced by the introduction of foreign bodies into the trachea. In one case death ensued in thirty days from the accident, and in another the termination was delayed for something more than three months. A case occurred in Vermont, some time since, where death followed the introduction of a plumb-stone in ten days. Another case occurred in Monston, Vermont, where a bean was drawn into the trachea, and it was removed by Dr. D. Stone, in opposition to the advice and remonstrances of friends and physicians. After making the opening, he was obliged to wait till an ingenious mechanic constructed a long, slender forceps, of soft iron. These Dr. S. shaped until he was enabled to reach the bean and grasp it fairly.

A very promising child aged seventeen months, daughter to Mr. N. H. R. of Parishville, while eating some water-melon on the 3d of August, 1821, drew one of the seeds into her windpipe. The immediate consequences were coughing, strangling, and convulsive efforts, and these symptoms continuing in a very alarming degree for several days, the parents consulted various physicians. The physicians concurred in advising the operation if the seed was not speedily discharged.

During the months of September and October, the child suffered every thing short of actual strangulation. At times its breathing was inexpressibly agonizing, and the strangulation seemed to be produced by the seed being thrown into the vicinity of the glottis by the cough. The periods of greatest distress in breathing were always succeeded by fits of cough-

ing. The relief was immediate on the cessation of the cough. In the earlier periods of this case, hours were sometimes past with the respiration free, easy, and apparently natural. Yet it was not uncommon for the child to be suddenly awaked from a quiet sleep by all the distressing symptoms, and the parents had become so well acquainted with the symptoms that they could designate the precise moment when the seed descended from the rima glottidis.

The condition of the child daily grew worse. The trachea and bronchiæ were becoming inflamed, notwithstanding the softness and smoothness of the watermelon seen. Cough and quick breathing, hot skin, and frequent pulse supervened. In addition to the distress produced by the irritation, there was every appearance of the inflammatory stage of phthisis pulmonalis. The patient was rapidly emaciated, and her strength was failing."

Tracheotomy was performed, but owing to the hæmorrhage and the struggles of the child, before the operation had ceased the patient became apparently dead. After suspending her by the feet, to discharge the fluids accumulated in the trachea, the seed was extracted from the opening, inflation gradually restored life; the wound was dressed, and she recovered.

PARK'S Case of Fractured Skull.

In this case the skull was fractured, and the dura mater was covered with effused blood, and lacerated extensively, with protrusion of the brain. The patient recovered by rest, antiphlogistic regimen, and purgatives occasionally. He was an adult; among children recovery from this accident is not uncommon.

A case of poisoning by opium, in which cold affusion was used with success; and also some cases of running tetter, (impetigo) cured by the use of the sanguinaria canadensis, by Dr. Hendrie of New-Jersey, are then given.

"Impetigo is defined 'a small pustule, often irregularly circumscribed, producing but a slight elevation of the cuticle, and terminating in a laminated scab. Many of the psydracia usually appear together, and become confluent—and after a discharge of pus, they pour out a thin watery humour, which frequently forms an irregular incrustation.' It is unaccompanied by fever—is not contagious, nor communicated by inoculation.

Five species of the complaint are noticed. I shall only notice the two first, having never had an opportunity of seeing either of the others.

Impetigo figurata: this is said to be the most frequent variety of the moist tetter. It appears in circumscribed patches of various forms and sizes, which consist at first of clusters of yellow pustules, set close together, and surrounded by a slight inflammatory border—the whole being slightly elevated. In a few days the pustules break, and pour out their fluid—the surface is red and excoriated, accompanied with a troublesome itching, heat, and smarting. In a short time the discharge partially concretes into thin yellowish or greenish scabs—it however still continues to ooze from under them. But in a few weeks more it diminishes entirely, and the scabs become dry and fall off, leaving the cuticle red, rough, and somewhat brittle, so that the ichorous discharge and scabs are easily reproduced. In this way the disease is often protracted for some considerable time—sometimes fresh crops of pustules reappear, as at first, and go through the same course.

The progress of the healing of these patches is various—so much so indeed, as to make it somewhat difficult to give any definite account of the process—though for the most part, we may observe it to disappear in the centre, leaving the border somewhat elevated—this finally recedes, the centre for weeks remaining red, shining and tender.

Impetigo sparsa: the principle difference between this and the foregoing species is in the form, more than any other particular. Its nature and progress is pretty much the same. The pustules are promiscuously distributed without much regularity over the extremities, about the neck and shoulders, and sometimes on the ears and scalp. It occurs more frequently than the *impetigo figurata* on the lower extremities, and here it is more troublesome and difficult to remove.

The only diseases with which *impetigo figurata* and *sparsa* may be confounded, are two affections—the *porrigo* and *scabies*. They differ from the first in not being contagious—seldom affect children, and occur mostly on the extremities. The discharge is ichorous, and does not form the thick, soft, and copious scabs of *porrigo*. From the heat and smarting which accompany the itching, we may distinguish them for the most part from *scabies*.

A lady somewhat advanced in life, had for the last fifteen years been affected with *impetigo*, (which was evidently that variety in which the psudracious pustules were intermixed with transparent vesicles.) The disease was confined to the wrists, hands and fingers. She had frequently been the subject of medical treatment, yet the only advantage derived was occasionally a short respite from some of the most troublesome symptoms—but the slightest exposure to any of the exciting

causes, was sure to bring on a return of the complaint. I directed her to procure some of the recent roots of the sanguinaria—to bathe the parts affected two or three times a day with the expressed juice, and at the same time to take small doses of sulph. sodæ. In a few days a very sensible amendment in the parts was evident, and after continuing the prescription for three weeks, not a vestige of the disease remained. About six months after this time, from undue exposure of the parts, a slight return of the complaint was evident. It was, however, immediately checked by a recurrence to the article for a few days—since which time she has remained completely exempt from it.

The next case in which I had an opportunity of testing its efficacy, was that of a lady, who had been affected for the last four years with impetigo sparsa. Here it was confined exclusively to the scalp, neck and ears. In this case, most of the usual remedies for the complaint had also been employed without producing the least benefit. The ichorous discharge was very copious, and the sense of heat and itching intolerable. After directing some cathartic medicines, the sanguinaria was employed, as in the preceding case. The first few applications of the article were attended with so much distress to the patient, that I was fearful of being compelled to abandon it—but by persevering for a few days, the irritation gradually subsided, and in the course of two weeks the disease was completely cured. Eighteen months have since elapsed, without any return of the complaint—I have every reason to believe the cure will be permanent.

Aware of the difficulty of procuring the root in its recent state, and desirous of ascertaining whether a decoction made of the dried would not be equally serviceable—I used it in this way, in several cases, with some advantage, though it did not appear to act with the same promptness. A common mode of preparing the remedy in the country, is, by macerating the recent or dried root in vinegar. This in all probability, from what I have seen, is the best mode of preparing it, when the article cannot be procured in its recent state. I have lately prepared it in the form of an ointment, and if the active principle can in this way be extracted, it would be the most eligible mode of employing it, since moist dressings do not generally agree with the complaint."

Dr. IRWIN's Case of Cancerous Duodenum.

On examination after death, "the duodenum was found much enlarged, and externally hard and unyielding. On ex-

posing its cavity, it was found in a cancerous state, and closely studded with tubercles, varying in size from a hickory-nut to that of a hazle-nut. The largest of them contained matter resembling cream somewhat dried. The whole surface of the seat of ulceration, presented a ragged, uneven, lacerated appearance. The quantity of pus found about the diseased part of the gut, was upwards of a gill. *Pancreas* diminished to one half its usual size, and scirrhus. On cutting into it, the interior presented much similarity in colour and texture to that of boiled cow's udder. Duct natural."

The number is concluded with Reviews and Medical Intelligence, most of which we have given in this and a previous number.

"The city and neighbourhood of Philadelphia, which for the last three years have been afflicted by a series of epidemics, are at present more healthy than we have ever known. The typhoid fever and small-pox of the winter, gradually disappeared on the accession of warm weather, and as yet there is no return of the country fevers. Whatever may have been the cause of these epidemics, it seems to have become exhausted, and we are restored to our former state of healthiness.

We are informed by Dr. Coates, that tartarised antimony, so exhibited as to excite and keep up a slight degree of nausea, is very effectual in the cure of paronychia.

Dr. Chapman found that coffee, made strong, without cream or sugar, and drank pretty freely, in two instances removed the pain and other distresses of nephritis calculosa, as promptly as an opiate, and where the ordinary remedies had failed. Several other instances have been mentioned to him of its striking utility.

In preparing quinine, or its sulphate, there is a considerable residue of a thick, viscid brown substance, that becomes solid after a short period, assuming a resinous aspect. In this city it has been prescribed, in intermittents, with decided advantage. Dr. Jackson has treated fifteen cases with it, in all of which the paroxysms were suspended—and thirteen remained permanently cured. The usual mode of exhibition was to give one grain, in form of pill, every two hours, during the day of the intermission, in tertians—and the same quantity every half hour, on the day of the paroxysm, commencing three or four hours before the usual time of the attack. In quotidians, five or six grains may be given every hour, or two hours during the apyrexia. It appears to be scarcely inferior to the sulphate quinine itself."

ANALECTA.

1. *Experiments on Variolous Inoculation.* By WILLIAM MAXWELL, M.D., Dumfries.—In 1801, the matter of small-pox was kept for a fortnight and inserted; the disease exhibited the common symptoms of variola. "Matter taken from this subject was used at the end of a month, without any deviation from the usual symptoms. Inoculation was again repeated at the end of six weeks, as in the foregoing experiment, without any sensible alteration in the result. In experiment fourth, matter was taken from the last case and kept two months before insertion; when the patients, two in number, appeared to suffer less from fever; the pustules were earlier than usual; I thought they scabbed sooner, and had a narrower inflamed margin; in short, that the disease began to acquire a sensible degree of mildness. In experiment fifth, at the end of ten weeks, matter taken from one of the subjects in last experiment was used in several children; in some of them it failed to produce infection; where it succeeded, the disease appeared less active: the pustules began to scab on the sixth day. Experiment sixth was made with matter taken from one of the subjects of the preceding one; it was inserted at the end of three months; the eruption appeared on the fifth day with little or no fever; the scabs fell off sooner than in the last experiment, but in this there might have been some inaccuracy, as I had it only from report. Experiment seventh was made at the end of fourteen months; two subjects only out of nine who were inoculated, were infected; the eruption appearing on the end of the fourth or beginning of the fifth day, without fever or indisposition: the pustules were smaller, more prominent, like the small end of an egg, and almost entirely free from inflamed margin: the scab, of a foliated structure, fell off about the eighth day, without leaving any pittings. Four sets of children were now inoculated with this matter, applying it directly from the pustules: the disease in all respects resembled that in last experiment, the children playing about in a state of perfect health.

Although the periods of inoculation are said to have been at the ends of weeks or months, they were sometimes a few days sooner or later, but not varying more than four. This irregularity was occasioned by attention to my own convenience, as most of the experiments were done in or near the village of Newabbey, a distance of seven miles from Dumfries. I have not heard that any of the subjects of the above inoculation have been infected by either small-pox or chicken-pox, although they have both been in the village, and no means were taken to prevent communication with the infected. Here the author's investigation ceased, giving way to vaccination, which extended rapidly."

These experiments go far to show that the varioloid disease and small-pox, if any doubt could now remain on the subject, are one disease. If it be true, as proved by the experiments of Dr. Carpenter some years ago in Philadelphia, that the vaccine pustules can be produced by the inoculation of the cow with the small-pox, we have the whole enigma solved of the success of the Jennerian discovery. The different degrees of power of the variolous contagion will explain the existence of chicken-pox, of the varioloid disease and variola, from the agency of one poison alone: Future observations must determine how far, like measles, to which some of the varieties of the varioloid disease approximate, it may originate from causes probably connected with the state of the atmosphere.

2. *Observations on Hydrocephalus Internus.* By W. MAXWELL, M.D. Dumfries.—In the year 1795-6, in consequence of the entire failure of the usual modes of practice, in twenty-five cases of hydrocephalus internus, all of which terminated fatally, Dr. Maxwell adopted the practice of bleeding from the jugular vein till fainting was produced, the patient being laid in the recumbent posture: some cases are given in illustration, in which the usual symptoms of excessive pain in the head, deafness, weakness, and finally loss of muscular power, imperfect vision, &c. were observed: Dr. Maxwell states, that in upwards of ninety cases treated in this way, above sixty have recovered: "The bleeding was continued till syncope began to take place: a little negus was then given; when the pulse revived the finger was removed from the orifice and the blood allowed to flow till the gentlemen agreed that the pulse could no longer be felt. The patient at this time had no appearance of life, and continued without the least symptom of animation for ten minutes, when he began to revive gradually: and in the evening more favourable symptoms appeared. His mind was remarkably improved, as well as his physical powers, being now able to articulate, although indistinctly, and to tell the hour on a watch. He had a tolerable night's rest, having taken frequently a little water-gruel and beef-tea. During the following day there was but little improvement. On the third day the bleeding was repeated in the left jugular vein, and a complete recovery followed."

On examination of seventeen of those that died, with the exception of eight, from four to six ounces of fluid was discovered in the ventricles, or in the membranes of the brain. In the eight cases the quantity of fluid did not exceed half an ounce. "In the first of these, a cyst, containing about four ounces of fluid, communicated with the right lateral ventricle: death took place at the end of seven months. In the second, there was suppuration in the middle of the right lobe. In the third, three round tumours of indurated cerebrum were found in the cerebellum. In cases fourth, fifth and sixth, much inflammation of the membranes and substance of the brain had existed. In the seventh, suppuration in the *thalami nervorum opticorum*. And in the last, excessive inflammation of the membranes, with some pus, was perceived near the *foramen magnum*."—*Dumfries, 4th Nov. 1822.*

3. SAUTER'S case of extirpation of the uterus.—Urged by the importunities of the patient, a woman aged about fifty years, Dr. Sauter (a physician of Constance,) was induced to undertake this hazardous operation, of which the following is the detail: "On the 28th of January, 1822, at 2 P. M., Dr. Sauter proceeded to perform the operation, assisted by his son and Mr. Distel, a surgeon. The only cutting instrument used was a fine, narrow scalpel, with a thin broad handle and short convex cutting edge. The patient was laid upon her back and her legs kept asunder by the assistants. The rectum and bladder were emptied in the first place. Dr. Sauter tried, by introducing the fore finger of the left hand curved to act as a hook through the disorganized *os uteri*, how far the uterus could be pulled down; but the fungous substance tore and bled, and the uterus did not move. The fore and middle fingers were now introduced under the *os pubis* into the space which the vagina forms around the uterus; the knife was next introduced between these fingers, and the vagina slowly divided to the uterus. The point of the finger was inserted, the incision and the circular division of the vagina gradually effected. Dr. Sauter next attempted to separate the lateral connexions as high as possible, again with his fingers in the mouth of the womb, pulled the uterus as far down as possible, and tried to separate the cellular connexions, partly with the handle of the knife, partly with the fore finger of the right hand, but could not succeed on account of the narrowness of the space and the strength of the connexions, and during this attempt, a great part of the fungus on the anterior lip of the *os tincæ* separated. Dr. Sauter next tried the forceps. He introduced one blade into the mouth of the womb, and the other over its anterior surface, and then pulled with some force, and attempted to

separate between the uterus and bladder by the handle of the knife and finger within the peritoneum, but in vain. Half an hour was consumed in these painful and fruitless efforts, and Dr. Sauter found himself obliged to change his mode of operation and desist from all attempts to peel the uterus out of the peritoneum; and he took the desperate (and, to himself, unaccountable) resolution of cutting the uterus, *in situ*, entirely out. He now put two fingers of the left hand into the vagina, and into the separation made between the bladder and uterus, carried the scalpel between these fingers to the place to be cut, endeavoured to lay hold of a portion of the cellular membrane with the bent fore finger, and thus cut portion by portion between the fingers, always keeping close to the uterus, until he got into the cavity of the abdomen. He next laid hold of the peritoneum with the hooked fore and middle fingers, and pulled it down, and divided it with the knife, portion by portion, close to the uterus on both sides, until the anterior and upper connexion, along with the peritoneum, was divided as far as the lateral connexion which lies higher. He now introduced the whole left hand into the vagina, laid hold of the lateral connexions with the fingers as before, and cut off from above, downwards as close to the uterus as possible, all connexion of the uterus with the ovaries, Fallopian tubes, ligaments, &c. He was now able to lay hold of the *fundus uteri* with four fingers, and attempted to invert it forwards; but the patient pressing strongly down as in labour pains, the intestines protruded into the vagina, over his hand, and he was obliged to desist. At a third attempt, by the aid of an assistant, who made strong pressure above the pubes, the uterus was at last inverted and brought down, with its fundus, forwards to the external labia, the intestines following. He was, however, now able easily to complete the division of the lateral connexions, and that with the rectum from above, downwards, and thus to terminate this dreadful operation. The intestines were now reduced into their natural situation; the patient kept in a perfectly horizontal position, and some clean dry lint introduced. The hemorrhagy was never so great as to threaten danger, and it was not necessary to secure any vessel. About a pound and a half of blood might have been lost in all. But, for the sake of precaution, wads of lint wet with the solution of alum, were stuffed into the vagina upon the dry lint already there.

The patient bore the operation wonderfully, and did not feel faint till it was over. She then complained of pain, especially in the epigastrium. The body was covered with a cold sweat; the pulse very small, scarcely to be felt, and diffusible stimuli were given in small doses. In three hours after the operation she recovered; the sweat became warm, and the pulse better. She now complained of burning heat in the vagina, but had no pain in the abdomen; and those in the pelvis, the consequence of the operation, soon ceased.

The uterus thus removed was, by the measurement of a figure said to represent it in its natural size, about two and a half inches long, and two broad, and the fungus protruding from its mouth still larger.

The detail of the convalescence need not be long. For some days vomiting recurred at intervals, chiefly during the night and after food. She was freer from pain the day after the operation than she had been for months. On the following day the intestines could not be reached by the finger through the vagina. On the ninth day after the operation, she sat up in bed; and on introducing the finger into the vagina, the peritoneum was felt contracted into a hollow cone. On the 13th she got out of bed for a little. Her convalescence was retarded by local exfoliation of the mucous membrane of the vagina, the effect of the application of the concentrated solution of alum, bowel complaints and incontinence of urine; but, on the 16th of March, in other respects she might be considered as cured. On the 9th of May she left the hospital, and took to her ordinary occupations and mode of life. On the 19th she began to complain of pulmonary affections, and she died on the 1st June.

The body was examined next day. The skin was very pale, and of a waxy

whiteness; the left leg and thigh, and the *labium* of this side, œdematous; the abdomen not distended. By the finger in the vagina, the pelvis was found closed; and in the whole space there was no swelling or ulcer, but the posterior surface of the bladder was open. In the thorax, the lungs were found œdematous, and filled with greyish mucus, the heart natural. In the abdomen, every thing was in a good state, and in its natural situation; no effusion, or indication of former effusion. The omentum covered the intestines, as usual. The liver was in all respects natural, the gall-bladder empty. The spleen healthy, as well as the kidneys. The stomach pale, flaccid, pretty large, empty, and not distended with air. The intestines throughout natural, in their proper positions, no where inflamed, or showing traces of former inflammation; the small intestines quite empty; the ascending colon containing a considerable quantity of feces, of a soft consistence. The abdomen was entirely closed towards the pelvis; the peritoneum in this situation, as every where else, had its natural colour; the intestines could be freely lifted from it, except at one point in the middle of the covering of the pelvis, where the small intestine, resting upon it, adhered firmly by its external coat to a firm whitish-grey membranous mass, half a line in thickness, about the size of a sixpence (6 kreutzer,) and was difficult to separate; but the separation was affected without opening the gut. Behind this, towards the rectum, there was a more extensive adhesion, about the size of a dollar, which could not be separated without opening the pelvis. All these intestines were perfectly sound, no where contracted, and their functions unimpaired. The rectum passed right into the pelvis, quite uninjured, and the division quite sharp upon it. The pelvis, examined from above downwards, was without growth or ulceration, and every where perfectly healed. The ovaries were found in their natural situation, but appeared rather small. The Fallopian tubes could be distinctly made out.—*Edin. Med. and Surg. Jour. July, 1824.*

4. M. GRAEFE'S Case of *Lithotomy*.—The operation was undertaken under very unfavourable circumstances in a countryman aged 38, who had suffered from calculous symptoms nearly thirty-five years, and was almost exhausted by pain and misery. That the stone was large could easily be seen beforehand, but after the bladder was opened its size was found to exceed all expectation. So great was it that the forceps, however carefully applied, slipped off, or sunk into the concretion, or even bent at the handles; but all in vain. Professor Graefe at last succeeded in extracting it, by introducing three lithotomy scoops into the bladder, and using them (with the aid of an assistant) as levers. Immediately after its extraction, the stone weighed twenty-one ounces and nearly four drams. Its length was four inches, three lines; its breadth three inches, nine lines; its thickness two inches, ten lines; its longest circumference eleven inches, nine lines; its shortest nine inches, ten lines—all Paris measure. The patient was at first much relieved, but unfavourable symptoms soon appeared, and he died on the 11th day. The section shewed that the wound in the bladder had contracted to the size of two inches; that the bladder had not been lacerated, and that it was not even inflamed. From the immense size of the stone which had completely filled the bladder, and therefore constantly obstructed the passage of urine, the ureters were dilated as high up as the kidneys, into large bags which had contained the urine.—*Anderson's Quarterly Journal, July, 1824.*

5. M. GRAEFE'S Case of *Ligature of the Innominata*.—This operation was undertaken for the relief of an aneurism of the brachio-cephalic trunk, attended with excessive pain and suffering, and increasing in such a manner as to render death inevitable. The mode of operation is not minutely described, but Dr. Graefe says, that after making an incision in the neck, he pushed the cellular substance aside, so as to get behind the sternum, and by means of a blunt hook, passed the ligature round the vessel, (which was about as thick as a finger, one inch from the arch of the aorta, and about two from the heart. The operation was completed in a few minutes, and though performed in the midst of some of the largest vessels in the body, no more blood was lost than

that which stained the fingers and instruments. Immediately on tightening the ligature, the pulse ceased in the arteries of the right arm, in the right carotid and temporal arteries. At the same time the throbbing in the aneurism stopped, and it became flaccid. The patient felt himself much relieved, and not the slightest disturbance of any function took place, as might have been expected from an operation which intercepted so large a portion of the current of blood issuing from the heart. Under the most simple treatment the patient was so much relieved from all his sufferings, and so perfectly well, that not any of the many experienced professors who examined him doubted the high probability of his recovery. Several weeks after the operation, when the incision was almost wholly healed, bleeding took place at different intervals, rendering recovery doubtful. Having ceased, hopes were again entertained, until the symptoms again made their appearance, and in the end the patient died on the 67th day, consequently more than two months after the operation. Hurt as he felt by the loss of a patient who had happily got over so many dangers, Dr. Graefe regrets that he did not undertake the operation at an earlier period, and that he postponed it to the employment of other measures usual in such cases. Dissection shewed that the cure was nearly completed by deposition, within the aneurismal sac. The arteria anonyma was closed below the point of ligature by means of a thrombus. The brain and right arm were supplied with blood by anastomosing vessels. In spite of the unfortunate want of success which has hitherto attended the operation, Dr. Graefe expresses his conviction of its propriety, and ultimately favourable result. The description of the operation, the detail of symptoms, and the account of the preparation of the parts made after dissection, are more fully treated of in the work from which this account is extracted.—*Ibid.*

6. *Ligature of the external Iliac Artery*, by Dr. ARENDT, of St. Petersburg. —This case bears ample testimony to the advancement of operative surgery in Russia. In the first he tied the external iliac artery, in a strong man aged 44, two inches from its origin, for the cure of a femoral aneurism, as large as a child's head, including a third of the thigh, extending five inches above Poupart's ligament, appearances of an approaching rupture of the sac having already shewn themselves. He made an incision in the integuments seven inches in length, and nearly parallel with the crista of the ilium. He found some difficulty in passing the ligature from the depth of the wound, and the firm connexion of the artery to the neighbouring parts. A slight pulsation returned in the swelling a few hours after the operation, and on the day following became so considerable that Dr. Arendt thought it proper to compress the artery, which he effected by passing the ends of the ligature through a piece of cork, and then through a silver tube to the extremity of which they were fastened; the pulsation ceased directly.—On the second and third day, however, it again returned slightly, superficial gangrene of the most prominent part of the tumour occurred, and on the fourteenth day Dr. Arendt made an opening into it, to permit the escape of its contents; from that period the case proceeded uninterruptedly to a favourable termination.—We may remark, that Dr. Arendt does not appear to have been aware that after the operation for aneurism, pulsation occasionally returns in the sac by means of the anastomosing branches opening into it, or immediately below it, or between it and the point at which the ligature is applied. It is seldom, however, or perhaps never, sufficiently forcible to justify any apprehension of the return of the disease. For the same reasons we are much inclined to question the efficacy of the compression afterwards applied.—*Ibid.*

7. *Case of Ligature of the Carotid Artery*, by Dr. ARENDT.—We shall give this case principally in Dr. Arendt's own words.

"November 18th, 1821, at 3, P.M. John Konowaloff was brought to the Artillery Hospital. There was an immense swelling on the right side of the head, extending from the temple and middle of the forehead, to two inches below the lower jaw, and covering the whole of the right ear; the eye of the

same side was likewise hid, and the lids much swollen and distended. The tumour pulsated forcibly, and presented many livid fissures which threatened a speedy rupture.

"Excepting a feeling of weight and pressure the patient did not experience any other inconvenience. He stated, that he had from childhood had a *navus* over the right eye; that it increased to the size of a goose-egg, and by its weight had closed the eyelid, (other *navi* existed on the other parts of the body.) About an hour before his admission, the swelling had at once increased to its present size, in consequence of a blow from one of his comrades. (Dr. Arendt, being absent, did not see the patient until two hours after his arrival at the hospital; and considering that the swelling threatened rupture and inevitable death, resolved on tying the carotid artery, and did so at six, P. M. by candle light, in the presence of Drs. Heirott, Witte, and others.) He proceeds to say—the patient being laid horizontally on a table, with his head turned to the left side, I made an incision two inches and a half long, ending within an inch of the sternal extremity of the clavicle, running parallel with the inner edge of the sterno-mastoid muscle, and dividing the integuments and *platysma myoides*. The sterno-mastoid, and sterno-hyoid muscles, being separated, the *omohyoideus* presented itself at the upper angle of the wound, and then the great vessels enclosed in their sheath. I did not perceive the alternate motion of the jugular vein mentioned by Cooper, Hodgson, and others. I next attempted to pass the aneurism needle round the artery, so as to include it alone in the ligature, leaving out the jugular vein, *nervus vagus*, and *descendens noni*. (Dr. Arendt has neglected to state in what manner he opened the sheath.) Before, however, I could effect this, the aneurism suddenly burst; the blood poured out; the patient was seized with vomiting, convulsion, and cold sweat. This alarming occurrence did not deter me from completing the operation; my assistants Tarassoff, Tallquise and Smelsky, attempted to moderate the flow of blood by pressure with sponges; the quantity lost was estimated at three pounds. I placed two broad ligatures, each of six waxed threads, around the carotid; tightened first the upper and then the lower, leaving a space of half an inch between without dividing it. Immediately after the ligature, the bleeding ceased, the alarming symptoms vanished, and the patient became tranquil. The wound was closed, the head bent forward so as to relax the artery, and an opiate given. On the 19th I opened the tumour and took away a large quantity of coagulated blood, together with some portions of the integuments and spongy substance, and having tied about twelve small arteries, dressed the wound with equal parts of alum, kino, and gum arabic. Here again the patient lost much blood; in the two days about eight pounds; he was consequently much debilitated.

"On the 20th, the principal symptoms were a painful feeling in the trachea, swelling of the right side of the face, headach, thirst, and heat of skin. On the 21st, 22d, 23d, and 24th, the symptoms generally improved, except the pain in the trachea, which was attended with cough, resisted all the remedies employed, and put on the appearance of trachitis. It was relieved by the application of eight leeches.

"On the 5th of December the ligatures came away. He continued to improve until the 12th of January, 1822. The cough was then inconsiderable; the wound on the head was completely healed; that in the neck merely a little fistula. On that day, without any other evident cause than a violent fit of coughing, an arterial hemorrhage took place from the fistula in the neck, the blood pouring out in a strong jet. Eight ounces were lost in about two minutes, and then it suddenly stopped. Perfect rest and acid drink were prescribed. At nearly the same time on the following day another bleeding, to the same amount took place, and ceased of itself; to discover its origin, I dilated the wound, and washed it with warm water, but in vain, as no bleeding appeared.—January 14th, about the same time of day, another hemorrhage, by which the patient lost nearly a pound of blood. On the 15th, after a fit of

coughing, again a bleeding of five ounces: the patient much debilitated and agitated. On the 16th and 17th, not any. On the 18th and 19th it again appeared, and though but slight, so much exhausted the strength of the patient that both he and I despaired of his recovery. Fortunately it never again returned, and under the employment of suitable means, the wound closed, and the patient left the hospital on the 10th of April in perfect health."

Dr. Arendt professes himself totally unable to explain the cause of this singular periodical hemorrhage, particularly at such a length of time after the separation of the ligatures.

As regards the first case, he remarks, that though the external iliac has been frequently tied, it has been for the most part in the lower portion of its course, and that so far as his information extends, this is the first instance in which a ligature has been placed so near to its origin.—*Graefe und Walther's Journal*. 4ter B. 1stes H.

8. *Cynanche Trachealis cured by Tracheotomy*. By P. HUME, Esq.—Mrs. Boddington, aged thirty-one, wife of a respectable watchmaker, and mother of three children, was attacked on Wednesday the 12th of May, 1824, with severe pain and sense of heat in the upper part of her throat, attended with great difficulty of breathing and fever: but, attributing her ailment to a bad cold which she had had for some time, she paid little attention to it, until, feeling a sense of suffocation, she sent for me in great alarm on Friday the 14th. I found her labouring under great pain and difficulty of breathing, accompanied with a whizzing sound on inspiration; pulse above 110; heat considerably increased. Her countenance was peculiarly anxious; and at every inspiration the muscles of respiration were brought into excessive action. She could scarcely articulate so as to be understood. Bowels costive, and tongue furred. Feeling satisfied that nothing but an operation could save her (as it was too late to trust to calomel and emetic tartar, and other antiphlogistic remedies,) I merely bled her, and consulted with Dr. Loutham and Mr. Nind Whitewell as to the propriety of the operation of tracheotomy being performed directly. They being of the same opinion as myself, the operation was performed within an hour from the time of my first seeing her. As soon as I cut into the trachea she was relieved: she was then put to bed in a sitting posture, the wound being left open without any dressing or covering, and a saline aperient medicine was prescribed. I visited her in the evening, and found her comparatively well. The aperient mixture had operated: she was cool, and her pulse only 95.

On the 15th I found her continuing to improve. She had passed a good night, sleeping occasionally; but was troubled a good deal by cough, which gave her pain by forcing a bloody matter through the wound. The mixture was continued, with the addition of a little of the tinctura hyosciami.

16th.—Quite easy. Some discharge escapes from the opening upon coughing. She seems now to breathe through the mouth. Fever moderate. Bowels open.

17th.—Has had a considerable deal of fever in the night, but she still breathes freely. The wound is closing at the bottom by granulation. Cough less troublesome. Ordered a little calomel and antimonial powder, in addition to the former remedies.

18th.—In consequence of the fever having been subdued she feels quite comfortable. From this period she continued gradually to improve, and she is now, June the 4th, attending to her family concerns, and she only applies a little plaster to the wound, which is nearly well.—*Lond. Med. Rep.* July, 1824.

9. *Of the Section of the Fifth Pair of Nerves*.—M. MAGENDIE has recently communicated to the Academy of Sciences the result of his researches on the functions of the fifth pair of nerves. He found, after dividing this pair of nerves, that several senses were suspended. Believing that this arose merely from the injury occasioned by the operation, it did not at first excite his at-

tention; but remarking that the animals thus operated upon did not recover their senses, he directed his inquiry to these points. The same results attended his experiments on the sense of smelling: in the memoir presented to the Institute, he also states, that after the division of the fifth pair of nerves, the eyes are deprived of their sensibility, and of a considerable share of their appropriate functions—sight is nearly lost: they quickly become the seat of inflammation, and waste rapidly. The tongue also loses its sensibility; and sapid bodies seem to produce no sensation on the anterior part of the organ of taste.—*Ibid.*

10. *Observations on Amputation.*—MR. LISTON, Edinburgh, strenuously urges his professional brethren to relinquish the tourniquet in amputation, for manual pressure, or the *Spanish windlass*; that is, a silk handkerchief, and a bit of wood by way of a lever. This latter mode has been frequently practised at sea, when the tourniquets were not sufficiently plentiful; and is an admirable, a simple, and an easy substitute for the tourniquet.—*Monthly Med. Chirurg. Review*, April, 1824.

11. *Case of Lacerated Perinæum.* By J. M. CHURCHILL, Esq.—On Saturday, February 7th, about five o'clock P.M., I was called to Mrs. Edingborough, of King Street, Soho, a healthy woman, twenty-two years of age, who was in labour with her first child. Nothing particular occurred until about ten o'clock, when I found the soft parts so indisposed to dilate, that I was obliged to hinder the descent of the child (the head being the presenting part) for two hours afterwards, fearing that the strong efforts which were made would cause a rupture of the perinæum—an accident that, in spite of all my endeavours to prevent, took place.

On examining the parts, I find the laceration has extended to the sphincter ani, and that it then branches off on each side of it, leaving a complete semicircle of that muscle unconnected with the surrounding parts; but on introducing the finger into the rectum, I was most happy to find the recto-vaginal septum entire.

There are three circumstances which militate against union, viz., 1st, the wound being a lacerated one; 2d, the discharge that naturally ensues after delivery irritating its surface; and, 3d, the motion of the parts, as induced by the evacuation of the bowels. I determined, therefore, to put in two sutures, to give the parts an opportunity of uniting by a just approximation of their sides. I then drew the urine off, passed a piece of lint a little way into the vagina, and brought it backwards on the wound, that it might absorb moisture, and divert the current of lochia from the raw surface; and that no accumulation of hardened fæces should break asunder any union that might be disposed to take place, I ordered the bowels to be relieved by manna and salts. Strict injunctions were also given to her to lie on her side, and for the evacuations to be received by a bed-pan while in that position; after which cleanliness was to be particularly observed.

Ten at night.—Wound rather more painful; pulse 100; tongue, though moist, coated with brown fur. Cathartic produced no effect: ordered, therefore, another dose, in expectation that it would operate before twelve o'clock; but should this not be the case, as rest was desirable, I prescribed an anodyne of thirty drops of tinct. opii to be taken at that hour. I again passed the catheter.

9th.—Passed a tolerable night; bowels opened twice this morning, and there was no difficulty in retaining the fæces; tongue cleaner; pulse 90; skin rather hot, especially during the night; has been troubled with slight transitory pain in abdomen, which seems attributable to medicine; wound rather more painful, but looks generally healthy, and disposed to unite near the anus, but the front part is suppurating. Removed the back suture, the other answering its purposes well; inserted dry lint a little way into vagina, and brought it backwards so as to form a compress; over this a dry napkin; took

care to wash the parts and to wipe them dry, having previously drawn off the water.

Vespere.—Has passed the day comfortably; tongue moist; skin cool; is free from pain; the wound, for the space of nearly an inch from the anus, appears to be uniting; free discharge from internal parts, much of which is lochial; pulse 100; drew off the urine. Repetatur haustus anod. h. s. s.

15th.—Wound granulating, and union partially effected; she feels very debilitated.

R Decoct. Cinchonæ, ℥xvj.

Acid. Sulph. Aromat. ℥j. M.

Ft. mistura, sumat coch. iij. mane, meridie, et vespere; rep. haust. h. s. s.

16th.—Is much better in health; and from this time to the 24th required my attendance but once a day, when it ceased altogether, the wound having healed.—*Lond. Med. Rep. June, 1824.*

12. Dr. BLACKETT on the use of *Belladonna*.—December, 1823. H. B., a boy of nine years of age, in Park Street, was attacked, about the latter end of November, with pertussis. The usual symptoms were present in great violence at the time when I first saw him, which was the latter end of December. His bowels were much confined; his eyes much swollen, and appearing as if pushed from the sockets. His paroxysms of coughing were excessively convulsive, and his inspirations extremely shrill. The paroxysms always continued until they terminated in vomiting. He was free from fever. I gave him aperients, sudorifics with sedatives, and small doses of tartarized antimonial wine every morning, so as to produce nausea and vomiting. This practice was continued until I considered that the danger of determination to the head was past. I then gave him the fourth part of a drop of the tincture of belladonna night and morning, according to the following formula:—

R Tinct. Bellad. m̄j.

Pulv. Tragac. Comp. ℥ss.

Aquæ Menthæ Virid. ℥iv. Fiat mist., cujus cap. 4tam partem nocte maneque.

He continued the remedy for two days, without any material alteration, excepting that the paroxysms of coughing were not quite so strong. His bowels continued regular, and his pulse between the paroxysms was perfectly regular. I then ordered him half a drop night and morning in the usual mixture. From the first dose of this last mixture the paroxysms grew less frequent and violent; from the second and third they had nearly ceased; and from the fourth they ceased altogether, and did not afterwards return.

September, 1820. J. C., aged about ten, a boy of full habit of body, living in Broad Street, Carnaby Market. The determination of blood to the head was evident in this case, and the paroxysms very violent. After the necessary remedies, as in the last case, with the addition of cupping, he was relieved; and then, and not before, I gave him the belladonna, and he recovered in a similar manner as the former.

S. C., aged about eight, sister to J. C., had the disease very slightly. Her bowels were well relieved, and the belladonna afterwards given; but after the first dose she had not a return of the paroxysms.

December, 1821. A. W., a girl of seven years, in the Strand. The belladonna, after the first dose, brought on cold shiverings and perspirations, with dilatations of the pupils; but her pertussis was relieved, although she did not recover for nine days from the baneful effects of the belladonna. Oranges, lemons, and wine, with aperients, were required to be given before she could be restored from its influence. This patient was naturally of an indolent and

scrofulous habit. In all patients, therefore, similar in constitution to the last case, I should not advise the use of the belladonna. I have made it a rule not to give the remedy in such cases, but to substitute for it another plan of treatment.

Tumor Mammæ.—January, 1822. H. S., in Bond Street, a young woman about twenty-three years of age, received a violent blow on her left breast about three years previous to her application to me for relief. I found a deep-seated tumour, about the size of an egg, and extremely tender to the touch. She said that it was almost always attended with a sharp pain, and it appeared to her as if it was confined to the ribs by a string. I ordered her to apply the following plaster night and morning, spread on linen:—

℞ Cerat. Saponis, ʒj.
Ext. Bellad. ʒss. M. ft. ung.

and to take the carbonate of iron in pills:—

℞ Ferri Carb. ʒj.
Mucil. G. Acaciæ, q. s. ut ft. pilul. xij. quarum
cap. j. 4tâ quâque horâ.

She continued this plan for seven weeks, at the end of which time the tumour totally disappeared. This was the seventh case of tumour in which I have found it successful.

Spasmodic Stricture of Rectum.—November, 1822. M. N., Chapel Street, Grosvenor Square, a woman of fifty-two years of age, was attacked with great pain in the rectum, and an inability of voiding her fæces, although she had the desire. On examination, I found a stricture about two inches up the rectum, which would only allow the introduction of a very small bougie. After the examination she had a motion, which proved to me that the stricture arose from spasm. I ordered her an injection, which did not operate, owing to a return of the spasm, apparently induced by its administration. I immediately had recourse to the following application to the anus, and after two hours she had three motions:—

℞ Ung. Ceræ, ʒss.
Ext. Bellad. ʒj. M. ft. ung.

The next day the pain and stricture returned, and she was unable to procure a motion without the use of the ointment. After the fourth day, I increased the belladonna to half a dram: one motion was afterwards procured. On the next day there was no evacuation. I repeated the ointment, but no motion was obtained. Its use was continued on the following day, but without benefit. I then examined the rectum, and found it completely dilated, and the sphincter ani quite flabby. About an inch up the rectum I could feel the fæces; and, on further examination, I found a large accumulation of fæces, the muscles and parts having been completely paralysed by the belladonna. I ordered an enema, but it returned. I then advised the fæces to be scooped out, and an injection of salt and water to be used every four hours, with an opiate at bed-time. This plan was continued for two days, when the parts recovered. The patient has continued well ever since. I blame myself much for having pushed the application so far as I did in this case, as it might have been followed by more serious consequences. The case proves that the belladonna is not a medicine to be trifled with, even as an external application.—

Ibid.

Acute Rheumatism.—September, 1823. H. A., a female aged about thirty, residing in Berwick Street, from exposure to all the changes of the weather, was attacked with acute rheumatism in its severest form. She was blooded, purged, and treated with sudorifics, &c. A domestic contrivance

for administering a vapour-bath was also had recourse to, and employed twice a-day for three days, without benefit, although it produced the most copious perspirations. In the next application of the vapour which was resorted to, I had one ounce of the extract of belladonna dissolved in the boiling water. She found almost instant relief from this mode of administering the belladonna, which relief continued until the morning. The pains having returned, I repeated the bath. In the evening she was restless, and felt some slight pains shifting from one joint to the other. She took another bath, had a good night, and experienced no return of her pains, and gradually recovered her strength.

If, in this case, I had been fortunate enough to have had Captain Jekyll's vapour-bath, with the useful appendages, I have not the least doubt that even fewer applications of the vapour impregnated with the belladonna, than the few which were employed, would have been sufficient, and that her pupils would not have been dilated in the manner in which they were. Their dilatation in her case was owing to the steam escaping through the blankets; but it did not continue longer than two or three hours.

I have used this medicine in several instances where there was spasmodic stricture of the urethra, and always found it of great benefit. In one case only of this kind have I observed it to show its baneful effects. The case was that of a young gentleman about twenty-two years of age, where it so completely paralysed the urethra and the sphincter of the bladder, that the urine could not be retained. It, however, removed the complaint for which it was ordered.

Such consequences are very disagreeable both to the patient and the practitioner. I think that in this case I used more of the belladonna than was necessary. A small quantity, in general, has the desired effect.

M. C., a woman of seven-and-twenty, residing in Bell Street, Paddington, having been some time in labour, and the os uteri being dilated only to about the size of half-a-crown, and very rigid—a state which, in general, was met with in all her confinements—I applied half a dram of the extract of belladonna to the os uteri, and waited a quarter of an hour for a pain, which was ten minutes longer in the interval than before the introduction of the narcotic. To my great surprise, when I examined, I found the mouth of the womb flabby, and could move my finger within it, as if it were an empty bag. I tried to bring on action, both by giving stimulants internally, and rubbing externally the abdomen and irritating the os uteri. The womb did not recover from its paralysed state for six hours after the application, when the os uteri returned to its former state of dilatation (which was the size of half-a-crown.) The pains then came on rapidly, and she was delivered in the course of twenty minutes. After this lesson, I will never apply this medicine to the os uteri in cases of labour.

B. F., a woman about thirty-eight years of age, residing in Grosvenor Street, was taken in labour with her first child. Every thing was going on right, excepting that the external parts were very rigid. I procured some of the extract of belladonna, and when the head was in the perinæum, and not before, I applied it. It proved here of great benefit, as the external orifice dilated without the least difficulty, and the patient was safely delivered.

Let me caution those who attempt the use of this medicine, to commence the administration of it—whether internally or externally—always in small doses or applications, and afterwards gradually to increase it. If the least bad effect should arise, it should be laid aside immediately. But if all goes on favourably, it ought to be increased slowly and prudently, until what is required of it be obtained; of course, there will then be not any occasion to increase it as long as the same effect continues.—*Ibid.*

13. *Hydriodate of Potash.*—M. TADDEI proposes the following method of preparing this salt: dissolve iodine in spirit of wine, and pour repeatedly a solution of hydrosulphuret of potash into the solution of iodine; the fluid becomes turbid, and changes from the blackest brown to a chesnut colour, and

this, diminishing in intensity, gradually becomes flesh coloured, and afterwards milk white. At this period the conversion of the iodine into hydriodic acid is effected; and if the liquid does not become turbid on the addition of a few drops of hydrosulphuret of potash, the operation may be regarded as complete. After standing a few minutes, the precipitated sulphur is to be separated by decantation or by the filter, the mixture is then to be distilled to procure the alcohol employed, and the residuum is to be evaporated to dryness in an open vessel to obtain the hydriodate of potash.—*Giornale di Fisica, etc.* 1824.

14. *Volatility of Salts of Strychnia*.—M. FERRARI gives the following process for this purpose: solutions of salts of strychnia slightly acid when exposed to a heat of 212° so as to be concentrated, then become volatile and the salt evaporates. This property has been remarked in the sulphate, nitrate, muriate, and acetate, and this is believed to belong to all the salts. It has been remarked by M. Collaud and others, that the sulphate of quina is also volatile, and M. Ferrari, on repeating the experiments with the muriate and nitrate of quino, found it also to happen to them. The solutions on being heated in a tinned copper vessel, gave out vapours which, when breathed, were found to be highly bitter. The salts vary in extent of this property, and it is also affected by the degree of acidity, and of concentration of the solution.—*Ibid.*

15. *Crystallization of the Sub-carbonate of Potash*.—M. FABRONI describes the following process for the crystallization of this salt. Make a solution of pearl-ash in water, and evaporate it until of specific gravity 1.57. Allow it to cool, when all extraneous salts will be deposited; separate the fluid and again concentrate it until of specific grav. above 1.6. The fluid will now be of a light green colour, and strong alkaline odour; place it in deep vessels, as glass jars for instance, and the sub-carbonate will soon crystallize in long rhomboidal white laminæ, situated vertically and parallel to each other; one extremity will touch the bottom of the vessel, and the other be attached to a saline crust on the surface of the liquid. When cold the mother liquor will be found of specific grav. 1.6, but if further concentrated and again cooled, more crystals will be obtained; and this may be continued until the whole has been crystallized.—*Ibid.*

16. *Resin of the Nux Vomica*.—So far back as 1809, M. Magendie ascertained that an entire class of vegetables (the bitter strichnos) has the singular property of powerfully exciting the spinal marrow, without involving, except indirectly, the functions of the brain. The alcoholic extract of the nux vomica has since been frequently employed in both partial and general paralysis, but the actual degree of success has not yet been ascertained. The preparation is easily made by exhausting, by repeated macerations, a determinate quantity of rasped nux vomica, in alcohol, and evaporating it slowly to the consistence of an extract. The dry extract may be made by dissolving in water the alcoholic, and evaporating to dryness. The dose of the resinous extract is from half a grain to three grains in pills. It possesses the same properties as the strychnine, but is much more manageable. *London Medico-Chirurgical Review, June, 1824.*

17. *Strychnine*.—In the nux vomica, the bean of St. Ignatius, and the celebrated poison of Java, there is a peculiar vegetable alkali termed strychnine, one of the most virulent poisons in nature, as we have before said. It is soluble in water slightly acidulated, and so intensely bitter, that it is decidedly perceptible when diluted in sixty thousand times its own weight of water. The sixteenth part of a grain paralyzes small dogs in four or five minutes, and kills them in less than half an hour. Its action is peculiar and uniform, paralyzing invariably the hinder extremities.—*Ibid.*

18. *Morphine and Salts of Morphine*.—In morphine, we have exclusively the anodyne or sedative property of opium. It is obtained by a troublesome process in small regular crystals, but little soluble in water, except with a slight excess of acid.

“The acetate of morphine, is the combination of this substance, most uni-

versally approved; it is a very deliquescent salt, and may be exhibited in any aqueous fluid, in doses of from one-fourth of a grain to one grain, or formed into a pill with liquorice powder, treacle, &c. I have adopted a very simple method for separating these principles of opium for pharmaceutical purposes, by treating it repeatedly with sulphuric æther, and subsequently forming it, by solution in distilled water and evaporation in vacuo, to the consistence of an extract. This preparation, which I distinguish as '*Extract of Morphia*,' may be uniformly substituted for the ordinary *extractum opii*, and the dose of it considerably augmented, without producing nausea, restlessness, &c."

The acetate of morphine is prepared by Magendie, by combining directly, in an evaporating dish, acetic acid and morphine, letting the mixture slowly evaporate to dryness.

Narcotine contains solely the stimulating property of opium. In its pure state, a few grains of it are destructive of animal life. It has not yet been employed in medicine.—*Ibid.*

19. *Emetine*.—Pelletier and Magendie, about six years ago, ascertained that the different species of ipecacuan owed their emetic properties to a particular immediate principle, which they denominated *emetine*. This substance is much more active than the root itself—is devoid of disagreeable taste, or nauseous odour—and may, they think, be advantageously substituted for ipecacuan on all occasions. The *pure emetine* is a new vegetable alkali, white, pulverisable, unaltered by the air, scarcely soluble in water, but easily so in ether or alcohol. Its taste is slightly bitter—it is soluble in all the acids, resembling veratrine by forming with them a crystallizable combination. Its action is similar to that of the impure, or coloured *emetine*, but much stronger—two grains of it being sufficient to destroy a large dog. One sixteenth of a grain of it produced vomiting in a man of 85 years of age. To operate in this manner, one grain or rather less, dissolved in acetic or sulphuric acid, may be given in a draught, in divided doses, till the effect is produced.—*Ibid.*

20. *Alkalis of Cinchona*.—Pelletier and Caventou discovered an alkaline substance in bark, which they denominated *cinchonine*. This they obtained by operating on the grey cinchona (*cinchona condaminea*.) The yellow bark (*cordifolia*) furnished an alkali which differed considerably from the *cinchonine*, and to which they gave the name of *quinine*. Next followed the analysis of the red bark, (*c. oblongifolia*) which furnished *cinchonine* in triple the quantity yielded by the grey bark, and double the quantity of the *quinine* furnished by the yellow bark. Further experiments, on a large scale, have shewn that *quinine* and *cinchonine* exist simultaneously; but the *cinchonine* is, relatively to the *quinine*, in greater quantity in the grey bark; whilst, in the yellow bark, the *quinine* so predominates, that the presence of the *cinchonine* might readily escape notice. We shall give the most recent formula for obtaining both these celebrated salts.

"Boil the bark in alcohol until it loses all its bitterness; evaporate to dryness in a water bath; dissolve the alcoholic extract entirely in boiling water, strongly acidulated with hydrochloric acid; add an excess of calcined magnesia, which, after boiling some minutes, will fix all the red colouring matter, and make the liquid clear. When cold, filtrate and wash the magnesian precipitate with cold water; dry it on a stove; separate all the bitterness by repeated digestions in boiling alcohol; mix the alcoholic liquors, and the *cinchonine* will crystallize as the fluid cools. The *cinchonine*, which is thus obtained, still contains a green fatty matter, which may be separated by solution in a very weak acid. If the acid be too strong, it will dissolve a part of the fatty matter, and the intended object will be thus defeated.

"*Quinine* may be obtained from the yellow bark by a similar process to the one described above."

Cinchonine is white, translucent, crystallizable in needles, and soluble in 700 parts of cold water. If dissolved in alcohol, or rather in an acid, it tastes powerfully bitter, and exactly resembles that of the pale bark. The sulphate

and acetate of cinchonine are used in medicine. The first is very soluble in water—the second is much less so, but an excess of acid dissolves it with tolerable facility.

QUININE is white and uncrystallizable—it is as little soluble in water as the cinchonine, and is much more bitter to the taste. It is very soluble in ether, while cinchonine is very little so.—*Ibid.*

Sulphate of Quinine.—M. Henry, jun. has lately made known an expeditious and cheap process for directly obtaining the sulphate of quinine.

"He digests, repeatedly, in hot water, acidulated by sulphuric acid (6 or 8 grammes [gr. 92.66 or gr. 123.55 T.] to each kilogramme [oz. 32.17 T.] of distilled water.) He blanches the liquors by means of hot lime, and washes the precipitate to separate the excess of lime. He repeatedly digests this precipitate, when well drained, in alcohol at 36° (.837.) He then obtains by distillation, a brown viscid matter, which becomes brittle when cold, and is very bitter. He digests it in hot water, acidulated by sulphuric acid, and the liquor, when cold, gives perfect crystals of pure sulphate of quinine. He has not succeeded so well in extracting the sulphate of cinchonine from the grey bark by this mode of preparation.

"The sulphate of quinine obtained in this way, is in the form of white crystals, which are entirely soluble in water; little so, however, in cold water, but more so in boiling, and especially in weakly acidulated water."*—*Ibid.*

Acetate of Quinine.—The characteristic of this salt is the great facility with which it crystallizes. It is little soluble in cold, even with an excess of acid.—*Ibid.*

21. *Physiological Action of the Salts of Bark.*—A considerable number of experiments have now been made to determine the medical or physiological effects of these medicines, and it is well ascertained, that they possess the properties of the cinchonas, and, consequently that they may, in almost all cases, be substituted for them. It is, in the first place, desirable to ascertain the precise dose of all active remedies, and this is done better with the alkalis in question, than with the bark, from which they are obtained, and in which they exist in different quantities according to the state of the bark. In the second place, it is often, we might say always, desirable to administer medicines in a small volume and agreeable form. In these respects the salts possess great advantages. Chemistry, therefore, has done much service to medicine, by separating the active principles of vegetables from the inert substances with which they are combined in a natural state.

The sulphates of quinine and cinchonine may be given in doses varying from one to ten grains in the 24 hours. Some have carried the dose much higher, but this is seldom necessary. Large doses, indeed, have produced inconvenience, if not danger, giving rise to strong cerebral excitement. A wine or tincture of the sulphate of quinine may be made thus:—Sulphate of quinine, 10 grains; Madeira wine, two pints. The tincture—sulphate of quinine, five grains; alcohol, one ounce.

The cinchonine, while it is much dearer, is not so efficient as the quinine, and, therefore, we shall not dwell on it in this place.—*Ibid.*

22. *Veratrine.*—This active substance has been found in the veratrum sabadilla, the colchicum autumnale, and in the common white hellebore. It is scarcely soluble in cold water, and requires a thousand times its weight of boiling water for its solution. It is very soluble in ether, and still more so in

* "Dr. Paris gives the above process with some variation. He directs two pounds of the powdered bark to be boiled for half an hour in sixteen pints of distilled water, acidulated with two fluid ounces of sulphuric acid. The quantity of lime recommended is half a pound, or enough to render the solution of a dark brown, and to produce a redish brown precipitate. He says that the two pounds yield 3v. or 3vi. of the sulphate; eight grains being equivalent to an ounce of bark.—Tr."

alcohol. It is insoluble in the alkalis, but soluble in all the vegetable acids which it saturates, forming with them uncrystallizable salts, taking the appearance of gum on evaporation.

Physiological Action on Animals.—One or two grains of the acetate of veratrine introduced into the gullet of a dog produces, immediately, abundant salivation, which continues for some time.

"If a small quantity be thrown into any part of the intestinal canal, and the body opened to observe the effects, the intestine is found to become much indurated, and to relax and contract alternately for a certain time. The part of the mucous membrane which comes in contact with the veratrine is inflamed; the irritation spreads, and vomiting and purging are produced. In a much larger dose the substance induces a very great acceleration of the circulation and of respiration, which is soon followed by tetanus and death."

Mr. Haden states, that colchicum, when given in too large a dose, induces always inflammation of the mucous membrane of the bowels. He also gives the following fatal case of gout from an over-dose of tincture of colchicum.

"Mrs. —, aged forty, after frequently suffering from gout, requested her medical man to give her the colchicum in a very severe fit.

"She took ℥iiss. of a tincture made by infusing ℥iv. of the root in ℥viij. of proof spirit for three days, the mixture being kept at nearly 100° of temperature. This was given in the morning of Dec. 5. In the evening it had produced no effect, except slight squalmishness. Calomel gr. iij. opii gr. i. was ordered at bed-time and a purging draught for the morning. However, in the night, vomiting and purging commenced, and continued all the next day, in spite of effervescing volatile saline draughts with opium; so that in the evening of the 6th, opii gr. i. camphor gr. iii. were given and repeated in two hours.

"On the 7th, from accident, she was not seen till three *p. m.* when she was found in the collapse preceding death. The gout had previously gradually subsided. It was stated that she became faint at two o'clock *p. m.* and not till then were her friends alarmed. By opium and spirits, warmth was reinduced upon the extremities, and a feeling of greater comfort produced; but the pulse never completely recovered, although the sickness was completely subdued; so that at ten *p. m.* she fell into an apoplectic kind of sleep, which terminated in death before morning.

"It is peculiar, in this case, that Mrs. — was delicate, and some years before had nearly suffered death from incessant vomiting attended by cold extremities; it was relieved by inducing gout on the swelled knee by mustard cataplasms. In the fatal attack the sinapism was applied, with the effect of producing great pain, but without inflammation or heat of skin.

"It should be mentioned also, that this female's mother is exceedingly susceptible of the action of colchicum, in even small doses. The attendant practitioner begged also to add, that he only prescribed so large a dose as ℥iiss. because the tincture had only been made three days, and the formula directed it should be infused a fortnight."

Veratrine has not been used in the human subject in large doses. A quarter of a grain rapidly induces very abundant alvine evacuations, and if the dose be augmented it occasions more or less violent vomiting. M. Magendie lately gave it in the dose of two grains in the 24 hours, without producing too many alvine evacuations.—*Ibid.*

23. *Gentianin.*—Gentianin is yellow, inodorous, and possesses very strongly the aromatic bitterness of gentian, especially when dissolved in an acid. It appears to have no poisonous quality—and, it possesses little, if any, advantage over the root from whence it is obtained by a troublesome process.

24. *Iodine.*—M. Coindet, of Geneva, has entirely desisted from its internal administration. Externally applied in the form of an ointment, it is one of

the most powerful remedies we possess for discussing scrofulous and other glandular tumours.*

25. *Does Mercury produce ulceration of the throat, &c.?*—"1. In the year 1812, while serving in the East Indies, Charles Forster, a soldier of the Royals, came under my care affected with venereal blotches and ulcerations on various parts of his body: he had considerable swelling of the nose and face, with an offensive discharge from the nostrils; and after the exfoliation of a portion of the vomer and inferior spongy bone, a discharge of about sixty or eighty maggots took place from the antrum. This patient was at the same time affected with phthisical symptoms, and, notwithstanding these, I was induced to persevere in the use of mercury, under which he recovered.

"2. In the course of last year, I saw a young lady several times, who was kept for seven months under the influence of mercury, for the cure of an obstinate liver disease, and eventually recovered, without any affection of the throat, skin or bones.

"3. For the last two years, I have occasionally visited a lady labouring under extensive visceral disease, whose system had been for nearly the whole of the above period under the influence of mercury, and who, nevertheless, has not had the smallest symptom of mercurial disease,—no ulceration of the throat,—no eruption of the skin,—no thickening of the periosteum,—nor caries of the bones.

"It were easy for me to refer to numerous cases similar to the above, but at present this appears to be totally unnecessary; for while rotten bones have long been considered the legal inheritance of those who have suffered much from venereal disease, I am not aware that a single instance has yet been brought forward of mercury producing a similar affection of the bones, when exhibited for the cure of any other disease than syphilis; and until well marked and unequivocal cases of this kind shall be produced, those who advocate the utility and safety of mercury are not bound to obviate an objection to its use, which has not been proved to exist."—*Ibid.*

26. *A peculiar Affection to which the Bones of the Cranium are liable.*—"I first witnessed an instance of the separation of a portion of a sound parietal bone, in the case of a young man, who had a small tumour removed from the scalp by excision. The base of the tumour adhered to the pericranium, which had to be removed along with it; and by its removal, left a small portion of the cranium bare. But this very limited denudation of the cranium would not, under ordinary circumstances, have produced any perceptible effect; or at most, only the exfoliation of a superficial lamella of bone not thicker, nor more extensive, than a herring scale. But the separated portion to which I refer, was the whole thickness of the cranium, and equal in dimensions to a crown-piece. In all its circumstances, it possessed the character of a healthy bone, retaining the colour, thickness, weight, and every other appearance of health. No circumstance appeared in the history of this case, to account for the commencement of the separation of this portion of healthy bone, at so great a distance from the place where the irritation was applied. There was no useful purpose to be accomplished by the removal of this large portion of healthy bone; so that the cause from which this process originated is involved in complete obscurity.

"The next instance in which I had an opportunity to observe the commencement of a similar process, was in the case of a young lad, who had his skull fractured by a fall. He died in about twelve days after the accident,

* *Form of Ointment.*

R. Hydriod. Potassæ - - - - - ℥ij.
 Axungiæ - - - - - ʒiiss.
 Liq. Potass. Caust. - - - - - gtt. iv.
 Ft. unguentum.

when the erosion was found to have begun at a considerable distance from the place where the injury had been received. The nature of the violence which a fall produces will not account for the establishment of the process of absorption, at so great a distance from the place of the original violence, since there is nothing in the nature of the violence itself, to affect the texture of the bone, and to excite irritation, at the remote place where the absorption began."

27. *Cases of Neuralgia simulating Disease of the Brain.* By Dr. MARTINET. —Sudden and temporary attacks of paralysis are very embarrassing to the practitioner sometimes. We so generally associate the idea of paralysis with pressure on the brain or spinal marrow, that we usually take a gloomy view of such cases; and yet they are not always dependent on cerebral disease—at least that kind of disease which produces apoplexy and regular paralysis. Rheumatism, affections of the digestive organs, and even mental emotions, seem occasionally to determine these paralytic seizures.

Case 1. A woman, 60 years of age, enjoying good health previously, and leading a sedentary life, was taken all at once, on the 1st of June, 1822, with considerable loss of power in the right lower extremity, attended by a pain running in the direction of the sciatic nerve. On the 10th of the same month she complained of dull pain and sense of formication in the lumbar region of the same side. On the 12th, she felt darting pains radiating along the temple, forehead, and superior palpebra of the same side. On the 15th there was drawing of the mouth to the left, while the inferior jaw was also distorted from its usual apposition to the upper. On the 16th there was embarrassment of speech, the mouth being still more drawn to one side, with superficial pain, at intervals, in the facial nerves of that side. There was no febrile movement in the system; but the appetite was impaired. An emetic of ipecacuan was exhibited and operated well, but produced no effect on the complaint. On the 17th the mouth still drawn—difficulty and pain in moving the right thigh—painful dartings along the scalp, and deep-seated pain in the right side of the head. These symptoms continued unchanged for three days. 21st. Tongue coated; uneasiness at the epigastrium; the other symptoms still persisting. Ten leeches to the anus—purgation by sulphate of soda. 22d. Mouth less drawn—speech more distinct—diminution of hemicrania and facial pain—no difference in the loins, thigh and leg. Eight leeches behind the right ear—the same number to the loin—and a purgative of the sulphate of magnesia. In ten days more the whole of the symptoms had gradually disappeared.

Dr. Martinet comes to the conclusion, that these phenomena could not have depended on affection of the brain, but on neuralgia. "The same cause," says he, "which exalted the sensibility of the sciatic, lumbar, and facial nerves, determined paralysis of the small branches going to their respective muscles." The absence of paralysis in the upper extremity is also in favour of our author's pathology; for where the brain is in fault, the paralysis usually shews itself first in the thoracic members.

Case 2. Louis Joseph, aged 59 years, had been subject to irregular attacks of pain in his head from the age of 30. He had also occasional fits of palpitation, augmented by work (he was a copper-founder) and various moral affections. In the month of September last his head-ache increased, and on the 25th he was seized with the following symptoms, while going up to his workshop:—general shivering—increase of the cephalalgia—embarrassment of speech—sudden pain in the cheek, temple, arm, thorax, and lower extremity of the left side, with sense of formication and considerable diminution of muscular power, so that he was obliged to be carried back to his apartment. In a few days these symptoms so far subsided that he tried to walk out a little, but was soon visited with a return of all the symptoms above-described. On the 1st of October he entered the Hotel Dieu. Here the symptoms continued for several days, but gradually diminished, and at length entirely disappeared, under mild diaphoretics, and the application of fumigations to the side affect-

ed. M. Recamier, under whom the patient was, did not hesitate to consider it as neuralgia, having seen several other cases of a similar description, all of which got well by fumigations. We would only just remark that, when the symptoms are equivocal at first, the safest plan would be to act as if the brain were the organ in fault. Evacuations can do little harm, for a while at least, in neuralgia, but the neglect of them might be of the worst consequence in cerebral affection inducing paralytic symptoms.

28. *Lithotomy.* Mr. Key does not come forward with any idea of innovation on the principle of the lateral operation, "but merely to suggest an easier mode of accomplishing the same object." The success of Cheselden from the year 1731, at St. Thomas's Hospital, where he cut 52 patients in succession, with the loss of only two, attracted the attention of the surgeons of all Europe, who eagerly sought to acquaint themselves with his practice, and closely follow his steps. But his imitators were not so successful as himself, and various improvements, or rather *changes*, were, from time to time, attempted. Among these ranks first, the gorget introduced by Sir Cæsar Hawkins. The fundamental objection to this instrument, in Mr. Key's opinion, is, that from the manner in which it is introduced into the bladder, *it cannot divide the parts according to Cheselden's operation.* Here it becomes necessary to inquire what was the mode in which Cheselden did operate? In his first operation he followed the plan of Frère Jacques, but soon laid it aside. His next operation is thus described by Douglas.

"His knife entered first the muscular part of the urethra, which he divided laterally, from the pendulous part of his bulb to the apex, or first point of the prostate gland, and from thence directed his knife upward and backward all the way to the bladder."

This, or second mode, he also abandoned, probably from having wounded the rectum in some of his operations. The following appears to be his third and last mode of operating.

"An assistant holding a long and curved staff, Cheselden, with a pointed convex edged knife, made his usual large external incision through the muscles of the bulb and crus penis, and part of the levator ani, till he could feel with the fore finger of his left hand the prostate gland, at the same time keeping the rectum down, and preventing it being endangered: then, pressing his finger behind the prostate, and feeling the groove of the staff, he turned the edge of his knife upward, pierced the cervix vesicæ, till the edge rested in the groove; and completed the division of the prostate and membranous part of the urethra by the withdrawing the knife towards himself."

John Bell describes this last operation of Cheselden's in the following words:—"He struck his knife into the great hollow under the tuber ischii, entered it into the body of the bladder immediately behind the gland, and drawing the knife towards him, cut the whole substance of the gland, and even a part of the urethra;" or, in other words, "cut the same parts the contrary way," alluding to this operation as contrasted with the second. In short, from the concurrent testimonies of those most likely to be acquainted with Cheselden's mode, and which are fairly cited by Mr. Key, there can be no doubt that the prostate gland was divided by that celebrated surgeon in a manner very different from that in which the gorget divides it at the present time. Cheselden's aim was to divide the prostate in the depending part of the left lobe, with a considerable inclination towards the rectum. "The most dexterous operator with the gorget cannot effect this," says Mr. Key;—"the direction which the gorget takes is the very reverse of this—it is directed to be inclined upwards, by which the upper surface of the gland only is sliced off, and the major part of the gland remains whole."

Having made these preliminary sentiments respecting Cheselden's operation, Mr. Key proceeds to adduce his own observations on this important subject.

The form of the staff has always appeared to Mr. Key to present great dif-

difficulty in executing the operation on the true principles of the lateral lithotomy.*

"At the part where it serves the purpose of a director it is curved; a form certainly least adapted to convey a cutting instrument with safety where the eye of the operator cannot follow it; and, whether the knife or gorget be used, difficulties, though of a different kind, present themselves. When the former is propelled along the groove of the curved staff, as in Mr. Martineau's operation, the edge must be turned, if not directly downward, at least not sufficiently towards the left side of the patient to effect the necessary division of the prostate gland; unless the operator be skilful enough to turn the blade and divide the lobe of the gland, in doing which he is obliged to make two incisions, as Mr. Martineau has observed. 'I introduce,' says that gentleman in his valuable paper in the *Medico-Chirurgical Transactions*, 'the point of my knife into the groove of my staff as low down as I can, and cut the membranous part of the urethra, continuing my knife through the prostate into the bladder; when, instead of enlarging the wound downwards, and thus endangering the rectum, I turn the blade towards the ischium and make a lateral enlargement of the wound in withdrawing my knife. I thus avoid cutting over and over again, which often does mischief, but can give no advantage over the two incisions, which I generally depend upon, unless in very large subjects, when a little further dissection may be required.'

"While quoting this gentleman's description I take the opportunity of mentioning that I had the pleasure of seeing him operate at Norwich in the summer of 1818, and from his deservedly high character, as a successful Lithotomist, I was induced to pay most minute attention to the several steps of his operation; and I am satisfied from my own observation, as well as from his words, that he conducts his incisions of the several parts precisely on the principles laid down by Cheselden. The depth, extent, and direction of his external incision, and the division of the prostate gland, appear to me to accord in every particular with the operation of the great Lithotomist."

In using the gorget there is the danger of the beak slipping out of the groove of the staff—a danger not imaginary. The operator has to attend to two sensations—the gliding of the beak along the staff—and the resistance made by the prostate gland. While he is overcoming the latter, he becomes unconscious of the former—and at the same time he impales the prostate, loses all certainty of the beak being within the groove. "This difficulty depends as much on the curve of the staff as on the nature of the cutting-gorget, and is one that every candid surgeon must acknowledge frequently to have experienced."

The operator, in raising his hand and giving the first impetus to the gorget is aware of the hazard he runs, lest the blade slip between the gut and the prostate. By depressing it, he is in danger of thrusting the beak at right angles against the staff, so that the beak cannot run along the groove, or is nearly broken in the attempt. These accidents our author has witnessed, and they are by no means uncommon. Bell and Martineau dwell on the nicety of tact necessary in this part of the operation. "I would recommend," says Martineau, "every young operator to practise the directing of the gorget in the groove of his staff when he holds them in his hand, and he will perceive how easily the beak may slip out, if the convex part of the staff be not familiar to his observation." It is to be recollected that Cheselden never used the staff as a *director*—to the gorget belongs the merit of bringing the staff into this office. "Is it surprising," asks Mr. Key, "that the blind should err in a crooked path?"

* "The late Dr. Dease was so impressed with the hazard of passing a cutting instrument along the curve of the staff, that he used to withdraw the staff, after he had opened the urethra, and passing a director through the opening into the bladder, dilated the cervix vesicæ, by introducing the Gorget in the usual manner."

In consequence of the inclination upwards of the gorget, which the operator is desired to give, the several sections are made too high—giving rise, according to our author, to the following unavoidable evils:—

“First. The cutting edge of the gorget is conducted so high under the narrow angle of the pubic arch, as to incur a great risk of wounding the pudic artery; a frequent consequence of the introduction of the gorget in adults, being, as is well known to surgeons, a profuse gush of arterial blood; and, what is more material, not unfrequently great difficulty in restraining the hæmorrhage after the operation.

“Secondly. In the section of prostate, the gorget is carried upward through the large plexus of veins which surround the upper surface of the gland, by which long continued venous hæmorrhage is produced, filling the opening into the bladder with coagula, and preventing the ready exit of urine, both by the wound and penis; thus producing the infiltrations of urine into the cellular membrane, which frequently cause so much irritation after lithotomy.

“Thirdly. The section of the prostate is made in a direction most unfavourable to the extraction of a calculus. Instead of the free incision made through the depending lobe of the gland by Cheselden, the gorget merely slices off the upper and narrowest part, leaving the body of the gland, which affords so much resistance to a stone, untouched. This slicing of the gland never affords room enough for a large calculus to pass, and, in the violent efforts to extract it, either the bladder is torn laterally, or, what is worse, the prostate is dragged towards the external wound, and its ligamento-cellular connexion with the arch and ramus of the pubes destroyed. When the operation is properly performed, that is, when the wound in the prostate is sufficient for the passage of the calculus, the connexion between the prostate and the arch of the pubes remains; and affords an opposing barrier, when the finger is attempted to be thrust upwards by the side of the bladder. The consequences attending the destruction of the attachment of the prostate are worthy of consideration.”

To appreciate the consequences of laceration of the prostatic connexions, we must examine accurately the cause of death after lithotomy. This is generally attributed to peritonitis, which Mr. Key avers to be “an extremely rare occurrence, and still more rarely the cause of death,” after this operation. During ten years observation at Guy’s and St. Thomas’s hospitals, he has never seen an unsuccessful case examined after operation, where the cause of death could be fairly charged to the peritoneal inflammation. One pathologic condition, however, he has invariably found to obtain—*suppurative inflammation of the reticular texture surrounding the bladder*. The serious evils to the constitution which result from such a circumstance are illustrated by analogy. Thus in injuries of the scalp, if the wound has penetrated the tendon of the occipito-frontalis, we expect extensive suppuration, not from injury of the tendon, *quoad tendon*, but from the laceration or other injury done to the cellular membrane between the tendon and pericranium. So wounds of fasciæ, in the extremities or other parts, are dangerous not from the injury done to the tendinous fibres, “but from the exquisitely acute inflammatory action set up in the subjacent cellular tissue.”

“This reticular membrane may be regarded as an infinite number of serous cavities, communicating with each other, and presenting an incalculable extent of surface. Inflammation spreading rapidly through these cells will quickly affect a surface much greater than that of the peritoneum, and I have witnessed symptoms as acute, pain as severe, and the peculiar depression attending peritonitis as marked in the reticular inflammation, as in the most acute and fatal case of inflammation of the abdominal cavity. The instances I have met with of the texture surrounding the bladder being affected with suppurative inflammation, and terminating fatally, whether arising from lithotomy or operations for fistulæ in perinæo, are sufficiently numerous to allow me thus to generalize on

the subject, and afford a very useful lesson to those who endeavour to profit by examinations after death. In the inspection of those who die after lithotomy, it is not sufficient to look into the peritoneal cavity, to open the bladder, or to examine the state of the wound; the peritoneum lining the lower part of the abdominal muscles should be stripped off, and the source of evil will then be laid open. The finger will enter a quantity of brick-dust coloured pus in the cellular substance around the bladder, and if considerable force has been used in the extraction of the stone, will readily find its way towards the wound in the perineum; the barrier between the adipose structure of the perineum and the reticular texture of the pelvis being broken down, the suppurative inflammation spreads rapidly along the latter, and may be traced in some cases, between the peritoneum and abdominal muscles, as high as the umbilicus; in one case I have seen it extend to the diaphragm."

Lastly. Every surgeon fears the slipping of the gorget between the bladder and rectum. Mr. Key much doubts whether this be the direction which the gorget takes when it slips from the staff. In the only instance where he had an opportunity of examining after death, the gorget was found to have slipped from the groove, and was propelled under the arch of the pubes, where it entered the reticular texture above, and to the left side of the bladder. He believes this to be the usual course of the gorget, in such accidents.

In order to obviate the evils attending the gorget and curved staff—and, at the same time, to adhere closely to the operation of Cheselden, Mr. Key uses a straight director, which he finds to answer all the purposes of a common staff, while it is free from its objections. He did not adopt this alteration without first operating at the hospital, both with cutting gorget, and beaked knife. Nor did he lay these aside in consequence of want of success, as the patients recovered—but from the difficulty and hazard attending their introduction—and the general unsuccessful issue of gorget operations compared with Cheselden's method.

Mr. Key's director is straight, with a slight curve near the extremity, to prevent the point being caught in a fold of the bladder while depressing the handle. The groove is made somewhat deeper than in the common staff, to prevent any risk of the knife slipping out. The extremity is not grooved, but rounded like a common sound, to prevent abrasion of the prostate or mucous lining of the bladder. The handle is somewhat larger, to afford a better purchase to the hand. The chief superiority of this instrument consists in its allowing the surgeon to turn the groove in any direction he may wish. Before carrying the knife into the prostate, the groove which has been held downwards for the first incision, "may be turned in an oblique line towards the patient's left side that the operator may think preferable for the division of the prostate." Nor does it preclude the use of the gorget. This instrument may be propelled along the straight groove with more safety than in the curved staff. When the gorget is employed, the corresponding motion of the left hand is not required to carry it into the bladder. The director should be held perfectly quiet while the gorget is propelled along the groove.

The knife resembles, in form, a common scalpel, but is longer in the blade and is slightly convex in the back near the point, to enable it to run with more facility in the groove of the director. The opening made in the prostate, and also in the perineal muscles, can, in some measure, be regulated by the angle which the knife makes with the director as it enters the bladder. In the majority of cases, our author observes, it will merely be necessary to pass the knife along the director, and having cut the prostate, to withdraw it without carrying it out of the groove, varying the angle according to the age of the patient, the width of the pelvis, and the size of the stone. But we shall give the steps of the operation in Mr. Key's own words.

"An assistant holding the director, with the handle somewhat inclined towards the operator, the external incision of the usual extent is made with the

knife, until the groove is opened, and the point of the knife rests fairly in the director, which can be readily ascertained by the sensation communicated; the point being kept steadily against the groove, the operator with his left hand takes the handle of the director, and lowers it till he brings the handle to the elevation described in plate 3, keeping his right hand fixed; then with an easy simultaneous movement of both hands, the groove of the director and the edge of the knife are to be turned obliquely towards the patient's left side; the knife having the proper bearing is now ready for the section of the prostate; at this time the operator should look to the exact line the director takes, in order to carry the knife safely and slowly along the groove; which may now be done without any risk of the point slipping out. The knife may then be either withdrawn along the director, or the parts further dilated, according to the circumstances I have adverted to. Having delivered his knife to the assistant, the operator takes the staff in his right hand, and passing the forefinger of his left along the director through the opening in the prostate, withdraws the director, and exchanging it for the forceps, passes the latter upon his finger into the cavity of the bladder.

"In extracting the calculus, should the aperture in the prostate prove too small, and a great degree of violence be required to make it pass through the opening, it is advisable always to dilate with the knife, rather than expose the patient to the enevitable danger consequent upon laceration."

In the case, in which Mr. Key lately operated in this manner, the stone was very readily extracted, though of a large size, from the bladder of a boy four or five years old, in the presence of Messrs. Travers, Green and Tyrrell.—*Ibid.*

29. *Extirpation of the Parotid Gland.*—In the *Archives Generales* for January, M. Berard has reported the above operation as performed by M. Beclard in LA PITIE on the 19th of August, 1823. The patient was a paper-stainer, who entered the hospital for a cancerous ulceration of the parotid gland. The disease had commenced eight years previously; but though indolent for a long time at first, it had lately increased rapidly and become the seat of lancinating pains. It was fixed, and when he entered the hospital, it was of considerable elevation. It raised the lobe of the ear above, apparently involving the cartilaginous portion of the auditory canal—downwards it extended more than an inch below the angle of the jaw—backwards it adhered to the sternomastoid muscle—and anteriorly it covered a great part of the masseter. It was ulcerated in two places.

Operation. The tumour was inclosed by two curved incisions, one inferior and one posterior. That part situated over the masseter was easily dissected off. Then an attempt was made from below upwards; but a projection of its substance plunged deeply behind and beneath the internal pterigoid, the removal of which would, the operator thought, endanger hæmorrhage. M. B. therefore decided to dissect upwards, by striking the bistoury into the structure of the tumour itself, on a level with the projection, while the instrument divided the cellular tissue connecting it with the adjoining parts. Half the inferior circumference of the cartilage contributing to form the auditory canal was removed by the first dissection. Numerous arteries were tied at this stage of the operation, and M. Beclard continued the extirpation of the remainder of the tumour. When nearly the whole scirrhus matter was removed by successive slices, a large jet of arterial blood announced the section of the external carotid, or one of its large branches. A finger was put on the place whence the jet issued, and the vessel was seized with the forceps, while a needle with a double ligature was passed around it. An assistant tied the vessel above and below the wound in it, which was lateral. The artery was then held forward out of the way, whilst the surgeon completed the extirpation of great part of the tumour. One small projection of the tumour placed before the cervical vertebra was left, on account of its proximity to the internal jugular vein. M. Blecard passed two ligatures beneath this part, by means

of a needle, tying the one at the superior the other at the inferior extremity. The wound, which formed a tremendous chasm, was dressed forthwith. Nothing particular occurred for the first days after the operation. All that side of the face was bereaved of expression. The right eye remained open, and, in consequence of being dry, became inflamed. The suppuration was going on kindly, and healthy granulations covering the wound when, on the 12th day, the patient experienced rigors, followed by fever. Erysipelatous inflammation attacked the neighbouring parts, and delirium supervened. When this subsided, taciturnity ensued, and ultimately mental alienation, ending in death, better than three months after the operation, the wound being closed except one place near the ear, where it was again assuming the cancerous appearance.

On dissection, the pia mater was found injected, water in the ventricles, some pus in the meatus auditorius. The external carotid artery was found to terminate in cellular membrane resulting from cicatrization of the wound—the internal jugular vein was obliterated at the same place.—*Ibid.*

30. *Tetanus Traumaticus*.—Mr. Liston lately amputated the lacerated hand of a boy in whom tetanus took place some days after the laceration. The branch of the median nerve going to supply the thumb was found torn two thirds across, and its extremity inflamed and thickened for nearly an inch. The opisthotonos went off after the operation, and the jaw could easily be opened, so that sanguine expectations of recovery were entertained. But the boy was obstinate, and would not take his medicines (calomel and opium with purgatives) and the spasms returned. He died three weeks after the accident, and eight days after the amputation. Mr. Liston thinks that had the amputation been earlier performed, before the disease was completely established, success would have been more probable.—*Ibid.*

31. *Intestinal Tympanites*.—Dr. Levrat, Physician of the Hotel Dieu of Lyons, has related a curious case of this kind which was cured by puncturing the intestine, and setting free its gaseous contents. The patient was Madam Lepin, to whom he was called on the 25th day after a painful delivery, in which the fourchette was torn. He found the patient apparently dying; with facies hippocratica, small creeping pulse, cold extremities, and tumefied abdomen, which was very painful on pressure. Cordials, anodynes, and emollients were first prescribed, and removed the most urgent symptoms; but intestinal tympanites remained, and continued in spite of various medicines, to increase to an enormous extent. The convolutions of the bowels could be distinctly traced, and the air could be heard rushing from one knuckle of intestine to another. Emaciation had made great progress. Dr. L. determined on an operation. A very delicate trochar was constructed, not much larger than a darning needle, and about two inches in length. This was pushed through the parietes of the abdomen, on the right side, midway between the navel and the spine of the ilium, and into a projecting roll of inflated intestine. Immediately the stilet was removed, a quantity of gas rushed out through the canula, and the belly experienced a great reduction in size. The patient passed a good night, and next day a large quantity of hardened scybala came away, with infinite relief to the lady. From this time she went on well, and rapidly recovered. We forgot to mention that the canula (corked) was left in for some hours, and then some more gas drawn off.

This operation has been practised before, for tympanites, but not, we believe with success—probably because the wound in the parietes of the belly and in the intestine was made with too large an instrument, in consequence of which gas or other matters may have escaped from the intestinal tube into the general cavity of the peritoneum, and there excited inflammation. In Dr. Levrat's operation, the instrument was nearly as fine as that used in acupuncture, and consequently the wound in the intestine was so small as not to permit the escape of any intestinal contents into the cavity of the peritoneum, when the trochar was withdrawn.—*Bulletin des Sciences.*

32. *Antimony in the Phlegmasia.* A mystery and doubt still hang over the Italian mode of treating the phlegmasia by large doses of the tartrate of antimony. Dr. Fontaneilles has recently published his testimony respecting this litigated question, in the *ARCHIVES GÉNÉRALES* for February last, from which we shall abridge some particulars. We need hardly remark that the employment of tartar emetic is no new practice in the phlegmasia—but it was only considered as an auxiliary to blood-letting and other evacuations. The peculiarities of the Italian practice, and especially that of Russori, consist, 1^{mo}. in treating pneumonia, from beginning to end, with this medicine—2^{do}. in making it the principal, or almost the sole remedy—3^{tio}. to thus reduce, or rather discard blood-letting.—4^{to}. to exhibit the medicine in doses that would appear frightful to former practitioners—that is, to the amount of a scruple, or even some drachms in the 24 hours, and that without producing either vomiting or violent purgation.

The first accounts of this practice staggered the beliefs of physicians, who insisted that some fallacy must have crept into the reports. It was said that the medicine could not have been of its proper strength, or that the patients could not have swallowed the doses that were prescribed. Both these doubts have been cleared away, if we can credit the assertions of Dr. Fontaneilles (Physician of the Military Hospital of Milan) who has given the medicine to be analysed and experimented on by those who were competent to the task of both. Many physicians scrutinized the exhibition of the remedy in the doses described—without being able to detect any fallacy in the practice.

Our author observes that this capability of sustaining such large doses of emetic tartar depends entirely on a certain morbid state of the system—for when this morbid condition is removed, the power of taking the remedy in large doses with impunity or advantage, immediately ceases also. This, he insists, is the true and only solution of the enigma; and this indeed is most indubitably the cause, as we have hinted in a former number of this journal. This morbid condition, or diathesis, which bears the reception of such large doses of the antimony, varies in different cases of peripneumony (for it is of peripneumony which our author treats in this paper) and in different stages of the same case. Thus, this diathesis is less prominent in the beginning and in the decline of the inflammation—and most powerful at the acmé of the disease. The doses of the medicine must be regulated according to these epochs, otherwise their common effects will be produced. In general our author commences with not less than twelve grains in the day, and the same quantity in the course of the night. But when he finds that the pneumonia has made progress, he gives from a scruple to half a dram in each of the above periods, gradually augmenting the quantity, according to the violence of the disease. Sometimes, but merely as exceptions to general rules, the dose of the medicine exceeds the ratio of the diathesis, and then vomiting is the result. At other times, the violence of the symptoms, as the cough, pain, dyspnoea, &c. will abate, while the force of the diathesis remains undiminished—as known by the capability of bearing the large doses still continuing. We must not therefore diminish the dose with the diminution of the symptoms—*unless we find the power of bearing the medicine also diminish*. Again, some of the troublesome symptoms may persist, notwithstanding that the diathesis is declining. “Thus the breathing may become more short or laborious, or delirium and tendency to coma may supervene—and, if, in these cases, we find a diminished aptitude in the constitution to bear the large doses of antimony, we may conclude that organic changes are taking place, which will set at nought the resources of our art.”

The cessation of the diathesis is soon proved by the patient not being able to bear the smallest quantity of the tartar emetic, without loathing and disgust, although previously swallowing large quantities without the smallest inconvenience, but, on the contrary, benefit. Although our author looks upon emetic tartar as a direct sedative, and in this respect similar to digitalis, yet he ob-

serves that its exhibition, in full doses, is not attended with the same bad effects as sometimes attend the latter medicine. He has never seen the pulse reduced below 50 in the minute by antimony, and but rarely any irregularity in the action of the heart.

Our author has been asked why he does not abandon blood-letting altogether, since he has found so effectual a remedy for pneumonia in emetic tartar? His answer to this question is, we think, a very wise one. "In many cases, says he, the pneumonia runs its course so rapidly, that the structure of the lungs is menaced with destruction, which circumstance induces to put in force, *simultaneously*, different means of reducing the phlogistic diathesis." On the other hand, he deprecates the subtraction of so many pounds of blood in this disease, when venesection may be so powerfully aided and greatly abridged by the use of antimony. He properly impresses it on practitioners that blood-letting is never to be dispensed with in this class of maladies, especially when they are severe, since the effects of this remedy are prompt and certain, where time is so precious; whereas, it requires a certain period to elapse before the antimony produces its operation in checking the inflammatory process.—*Med. Chirur. Review*, June 1824.

33. *Porriago Galeata, or Scald Head*.—Banyer's ointment is strongly recommended for the cure of this disagreeable complaint by several practitioners, and lately by Mr. Sprague. The following is its composition.

R. Submur. hydrarg. . . . 3ij.
 Aluminis exciccat. . . .
 Plumbi subcarb. . . . āā 3ss.
 Terebinth. venet. . . . 3vi.
 Cerat. Cetacei 3iiss.
 Misce fiat unguentum.

Dr. Chapman employs the following application :—

R. Sulphuris sublimat. . . .
 Unguenti picis liq. . . . āā 3iiss.
 Saponis mollis
 Ammoniae muriatis . . . āā 3ss.
 Misce fiat unguentum.

Ibid.

34. *Muriate of Lime*.—Dr. Carter, in his last valuable Hospital Report, recommends a solution of muriate of lime in cases of intestinal worms. In cases of ascarides and lumbrici, after the bowels are well cleared out, the medicine appears to Dr. Carter to be an excellent remedy. In two or three instances he has known it expel worms when purgatives had failed to do so.—*Ibid.*

35. *Melena*.—A man was admitted into the hospital, on the 27th June, 1823, with pain and sense of fulness in both hypochondria—debility—stools frequent, pitchy, and generally mixed with dark grumous blood. Six drams of oil of turpentine with half an ounce of oil of almonds were exhibited; while decoction and tincture of cinchona were administered through the day. Under this treatment he greatly improved, and was discharged cured. Our author observes, that he has been in the habit for many years past of giving turpentine in cases of melena (and some others) often in much larger doses than in this case, and he has found it a most valuable medicine.—*Ibid.*

36. *Sloughing of the Bladder after Parturition*.—Mrs. Campbell, aged 23, had been three days in labour, of a first child, before delivery was effected—and that ultimately by means of the forceps. In the early stages of parturition she made water frequently, but towards the end, a total retention took place, nor could the catheter be introduced. On visiting the patient next day, she complained of an excessive discharge from the vagina, with pain and tenderness of the external parts. She had discharged her urine about an hour after

delivery, but had no power of retaining it since. Symptoms of an inflammatory nature now came on, requiring decided depletion, and when these symptoms subsided the melancholy fact of sloughing of the bladder was unequivocally ascertained. The situation of the aperture was about, or rather above the cervix vesicæ—its edges felt soft and irregular—and were painful to the touch. A piece of sponge was introduced into the vagina, as soon as the tenderness of the parts would admit, and applied in direct contact with the perforation in the bladder. A short elastic gum catheter was next passed into the urethra, and being fixed by suitable bandages, was allowed to remain there, in order to prevent any accumulation of urine in the bladder. In this way the edges of the aperture were brought into more immediate approximation. The report three days afterwards was—"the urine flows entirely by the catheter; sponge completely prevents it from passing into the vagina; feels much more comfortable; considerable discharge of offensive matter from the vagina." Two days subsequently there was "excessive discharge of fetid matter from the vagina, with great pain and tenderness of the external parts, which are now in a state of ulceration—urethra very irritable. The sponge and catheter withdrawn, cleaned, and again introduced. In three days more the pain and tenderness so great that the sponge and catheter were again withdrawn by the patient herself. At this time an examination was made *per vaginam*, and the original aperture was found so greatly diminished, as scarcely to admit the point of the finger. With much persuasion, she again submitted to the introduction of the sponge and catheter, which, in three days more, were withdrawn to be cleaned. They were again replaced. The above treatment was continued, with little variation, for a month, at the end of which time, the aperture in the bladder was completely shut up, by a soft but pretty firm cicatrix. The communication was thus entirely obliterated. She was examined five months afterwards, and found perfectly free from complaint.—*Ibid.*

37. *Self-performed Cesarean Section.*—Some marvellous cases of this kind are on record—but though on record, are of very suspicious authenticity. Dr. Moseley has related the case of a negro woman in Jamaica, who performed the Cesarean operation on herself, by cutting boldly through the uterus, and extracting a child from the left side of the abdomen. This operation was performed with a butcher's knife. The child died of lock-jaw, but the mother recovered. Extraordinary and incredible as this case may appear, it is more than equalled by a case recently published in our respected transatlantic contemporary, the New-York Medical and Physical Journal, for March, 1823. It is reported on the authority of more than one or two medical men. The operator was a young servant girl, "one fourth black," and only fourteen years of age! while the family were at dinner, she went a little way from the house, and placed herself on a wreath of snow, where she was discovered by her master in the act of covering something with snow—which proved afterwards to be a naked child. As soon as perceived "she immediately ran to the house with the second child hanging out at the wound, together with a considerable portion of her intestines." She was now surrounded by two medical men, Dr. Basset and another. A wound was found near the centre of the epigastric region, from which the second fetus was extracted. This wound was four inches in length, extending in a diagonal direction, as respected the abdomen, about two inches above the umbilicus, with another incision, at nearly a right angle with the former, extending toward the sternum. The lower part of the abdomen was considerably distended with blood. This was first evacuated by changes of posture and gentle compression. The wound was then sewed up, and a bandage applied. She recovered. "I should judge, says the reporter, from the appearance of the blood upon the snow (there being three several places where she evidently stopped,) that the incision was made *immediately* preceding the rupture of the membranes, and that the first child was delivered *per vias naturales*, the third pain after the rupture."

The above case was reported to the Rennselaer Medical Society by Dr. Samuel M'Clellan, (who appears to have been the other physician in attendance) the president of the society, and by them forwarded to several of the American Journals. It is one of those extraordinary cases which we cannot easily believe, yet dare not positively deny.—*Ibid.*

38. *The Stethoscope, a help to deafness.*—In walking one day through the Hospital, under the direction of Mr. Laennec, we were arrested by an interesting case of a young woman who had long been subject to epilepsy, and who was paralytic to a great degree. There was great irregularity at *certain periods*; and it was chiefly at those periods that she was attacked with her fits. After the violence of the paroxysm was over, she was usually for some days *deaf and dumb*—she was in this last state at the time of our visit. In vain did Mr. Laennec raise his voice and apply his mouth close to her ear: after listening apparently with great earnestness to the questions he proposed, she would sigh and shake her head to intimate that no sound communicated itself to her sensorium. When we were all fully satisfied of this, he applied one end of the stethoscope to *his own trachea*, and the other immediately over *her ear*, so that the orifice of the tube was directly over and continuous with the meatus auditorius externus, all *nicely adjusted*, and pressing equally on all sides: he then spoke in a *natural* and rather *low*, but *distinct* tone of voice, and she immediately, by her signs, signified that *she heard*. The next day it was more striking, as, although the deafness continued, she was able (rather indistinctly however) to answer the questions. The Doctor stated that he had experienced the same effects in several other cases, and that he could make the most deaf persons hear in this way. We have tried it in several cases in this city, and with the like success. One old gentleman could hear with great difficulty with *one ear*, but no efforts of the voice or *speaking trumpet* could affect the other—he had not heard a word with it, he said, for twenty years. We closed his best ear, applied the cylinder, and *he heard!* He could scarcely believe his senses. It may be interesting to know that a *female* voice was most distinct to *him*, and we believe it is generally the case.

39. RAIN.—Amount monthly (in inches and hundredths) from January 1820, to December, 1823. By the Board of Health, Philadelphia.

	1820	1821	1822	1823
January	15.35	1	1.74	2.67
February		4.15	3.40	none
March		.60	1.91	5.07
April		2.40	2.89	1.94
May	1.20	5.37	1.96	2.80
June		2.26	.94	1.15
July	4.92	2.03	6.36	5.53
August	1.98	4.04	.69	3.62
September	1.56	5.95	6.24	3.13
October	11.37	3.21	1.60	2.12
November	3.03	4.	4.84	2.08
December	1.61	2.63	1.35	7.03
	41.02	37.64	33.92	37.14

40. DR. EDWARDS on the influence of physical agents upon animal bodies,—i. e. the air, water, temperature, light and electricity.—These causes, in some of their modifications, exert a silent but constant agency, and the method adopted to measure the effects thus produced was that of experiment upon each of the four classes of vertebrated animals.—Among these physical agents, the atmosphere is most universal in its operation, and most important in its effects;

yet there appears reason to believe that, much as the phenomena connected with it have been studied, from the time of GOODWIN to the present day, too great importance has been attached to the relation subsisting between the atmosphere and the lungs, or, rather, this alone has been studied, while the effects resulting from the influence of the medium in which an animal is placed upon the surface of the body, has until lately been nearly overlooked. In some classes of animals, indeed, the influence of this agency is acknowledged; but its existence does not seem to be confined to those modifications of life which prevail in the species which constitute the lower ranks of creation,—at least, if we admit the theory of M. GEOFFROY respecting the respiration of the fœtus. The influence of the medium, independently of respiration, was ascertained by Dr. Edwards, by an ingenious application of the wonderful property possessed by reptiles of retaining the free exercise of sense and voluntary motion for a certain period after the excision of the heart. By this operation, the circulation is arrested, and the function of respiration ceases, as a necessary consequence. The result of this is to leave only the nervous and muscular systems in operation. If, when this has been done, some animals be placed in air, and others in water, the difference between the period during which life is prolonged under these two circumstances will indicate the respective influence of the media upon the nervous and muscular systems, *independently of respiration and circulation.*

Such was the plan adopted by Dr. Edwards. He cut out the hearts of four salamanders, two of which were exposed to the air, and two placed in water, which had been freed from air by boiling: for a short time they were all equally lively, but their activity gradually diminished, and was only manifested at long intervals. At the end of four or five hours, those in the water appeared to be dead, but they still moved on being pinched: one died at the end of eight, and the other of nine hours. Those which had been left in the air, on the contrary, lived twenty-four and twenty-six hours. These experiments were frequently repeated, as well on salamanders as on frogs, and with similar results, except that, in these latter animals, the period during which they survived in the air was not so much greater.

The difference in the effects of the media was further illustrated, by placing a frog, under the circumstances above mentioned, in water, and, when it no longer gave any sign of life, removing it into the air, by which it recovered and began to move. This experiment was likewise reversed.

Another modification of these experiments consisted in preventing respiration by tying pieces of bladder over the heads of frogs, so as to produce strangulation. They were paralyzed at first, but gradually recovered their strength to a certain extent, and lived from one to five days; while those immersed in water, under similar circumstances, died at the end of ten or twelve hours. It was further ascertained, by inclosing frogs, with the head thus enveloped, in vases of atmospheric air, that a portion of carbonic acid was formed, thus properly constituting cutaneous respiration. This had been previously ascertained by SPALANZANI, but in a less satisfactory manner, as there were sources of error in his experiments, which it is unnecessary here to detail.

A very curious question has received conclusive elucidation from the investigations of Dr. Edwards: we allude to the singular fact of certain animals, particularly toads, remaining alive for indefinite periods, although enclosed in solid bodies. Most of our readers are probably aware of the famous experiment of HERISSANT, who enclosed three toads in boxes sealed with plaster; two of which were found alive at the end of eighteen months. The account of this experiment is not very satisfactory in its details, as no mention is made either of the size or materials of the boxes employed; and there is reason to believe that a certain portion of air was present in them. Dr. Edwards, in order to guard against these objections, took boxes about four inches square, and having put some plaster in the bottom, he placed the toads in them, and, surrounding them on all sides with plaster, shut and secured the boxes. The

circumstance to be ascertained was—whether these reptiles, deprived of air by the contact of a solid body, or by immersion in water, would survive longest; and it is sufficient at present to remark, that they lived much longer in the plaster than in water. A fact sufficiently remarkable, but what appears more extraordinary still, is that they lived longer when enclosed in a solid body than in air. Four frogs were confined in a dry jug, and an equal number were placed in dry sand: the third day, all those confined in air were dead, except one, while all those enclosed in sand were alive, except one; from which it would appear, not merely that these reptiles can live when surrounded by solid bodies, but that placing them in this situation is a means of prolonging their existence; a conclusion which is in accordance with those well-authenticated narratives of animals of this class having been found in the centre of solid masses, where they must have been enclosed during periods concerning the duration of which it would be in vain for us to indulge in conjecture.

That the sand employed in the last-mentioned experiment contained air is obvious, and that the plaster was pervious to air was proved by the following experiment:—An open tube was corked with wet plaster to the extent of an inch; after it was dried, more plaster was applied, to cover any imperceptible apertures; the tube was then filled with mercury and inverted over a vessel of the same: the air entered through the plaster, and made the quicksilver sink in the tube. But as it might be said that, although some air passed through the plaster, yet enough to sustain life could not be supposed to find its way through so dense a body, toads and salamanders were enclosed as before, and the boxes buried in water and quicksilver: they now died as soon as when merely immersed without any covering. It would thus appear that the fact of these reptiles living in solid bodies is not an exception to the general law, which regards air as necessary to the support of animal life. The fact of their surviving longer in plaster or sand than in air, seems to depend upon the waste by evaporation being thus lessened: it having been found, by statical experiments, that, *ceteris paribus*, a frog confined in air became emaciated and shrivelled with much greater rapidity than when surrounded by solid materials; the rationale of which is too obvious to require explanation.

The influence of cutaneous respiration was further illustrated by preventing the action of the lungs. As the mouth of these animals is necessarily shut during respiration, to enable them to throw air into the lungs by a movement of deglutition, Dr. Edwards took advantage of this circumstance, by placing a piece of stick between the jaws, so as to prevent them from being closed, and retaining it in this situation by a particular apparatus. This contrivance impeded, but does not appear to have entirely arrested, the action of the lungs, and therefore the results can scarcely be regarded as satisfactory; nor the method, one proper to be adopted in repeating these experiments. A ligature was applied so as entirely to exclude the access of the air; the reptiles were placed on wet sand, and lived for a considerable time,—one of them for twenty days after complete strangulation, although, when similarly treated in water, they died in from one to three days; a result which is regarded as proving the beneficial influence of the air upon the skin. Yet another and a very important modification of this experiment consisted in the entire extirpation of the lungs, the peculiar construction of which in these animals renders it capable of being done without making an extensive wound: an incision of two or three lines in the flank permits of their extraction, while a ligature placed at their root prevents any effusion of blood. This operation was performed on three frogs, the external wounds being closed by sutures: they seemed to suffer little, and were soon as lively as before; two of them lived thirty-three days, and the other forty.—*Lon. Med. and Phys. Jour.* July, 1824.

MEDICAL INTELLIGENCE.

WE learn through Dr. Brown, that in Paris the stone in the bladder has been destroyed without pain or injury to the patients, by triturating it to powder. It is said, that it has excited more attention than any discovery since vaccination. Experimentum fiat.

Dr. Richard Cochran, of Columbia, has used with great success, a tea-spoonful of powdered charcoal, given every half hour in vomiting during bilious fever. He borrowed the practice from Dr. Kerr of New-Orleans, who used it in Yellow-Fever.

Dr. Richard Emmons, of the Great Crossings, Kentucky, recommends a combination of two grs. of gamboge, and one of tart. emetic given at small and repeated intervals in bilious fever as a purgative, which is easily taken, operates gently, effectually, and without griping, or producing vomiting.

Dr. James Moore, of Shelbyville, Kentucky, has communicated a case of worms, in which, after the evacuation of from 700 to 1000 lumbrici, a substance of the size of the finger, distended and ready to burst, was discharged; on opening it, innumerable small maggots appeared which he conjectured to be lumbrici.

Dr. Harrison, of Louisville, Kentucky, has treated successfully, a case of fracture of the fibula with extensive laceration of the capsular ligament and integuments, by placing the limb in a *splint box with a foot-board*, after uniting the integuments by adhesive plaster. The foot was retained in this position by a bandage, and the parts were covered with ice, occasionally remitted as the pain increased, for the first three days: by rest, bleeding, laxatives, and position, the limb effectually recovered in 32 days, so as to enable the patient to return home.

A patient, N. R. died of liver disease and general derangement of the chylipoietic viscera. Dr. Gist, Dr. Rogers, and Dr. Harrison, of Louisville, attended, and the following irregularities were observed on dissection.

The heart was in the right cavity of the thorax, while the situation of the auricles and ventricles was reversed; the aorta was seen arching towards the right side, descending in the ordinary route of the vena cava ascendens, and the cava was transposed to the usual tract of the aorta. The mediastinum occupied its usual partition line, but the three lobed lung was situated in the left, and the two lobed lung in the right side of the pulmonic cavity.

The œsophagus passed down on the right side of the aspera arteria, and the stomach was entirely reversed in its position; the large curvature being on the right and the small curvature and pylorus being on the left side of the abdomen. The duodenum commenced, and was situated mainly on the left side, and the sigmoid flexure of the colon on the right. The liver was entirely reversed in its position, being lodged in the left hypochondriac region, and the spleen occupied the right, being attached to the great arch of the stomach. The rectum terminated on the left side of the sacrum, and the bladder occupied its usual station.

This man was about thirty years of age, and at one period of his life possessed considerable vigour and activity. He was a native of the northern section of the United States, and was very healthy, until he removed to the south

PREMIUMS.

The proprietor of the Medical Recorder, desirous of advancing the science of medicine through the means of his Journal, and flattered by the reception of the Essay which lately obtained a premium and was published in the last number, proposes to offer a series of others.

Convinced that the promotion of science will be better effected by leaving the choice of the subject to the candidates themselves, as it will enable every individual to exert his talents in a way best suited to promote the object in view, he requests all persons disposed to write for them, to send their communications on or before the first days of January and July, with a sealed letter inclosing the name of the candidate. They will be submitted to the examination of not less than three respectable physicians, who will award the premium to those essays which will best advance the interests of the science—the successful one to be published in the next number after the date mentioned. The amount of each premium will be \$50, to be paid to the successful candidate, in medical or other books. The plan will be continued for one year; if successful, the value of the premiums will be increased.

The communications, with a sealed note containing the author's name, must be addressed to the Proprietor of the Medical Recorder (*post paid*): the unsuccessful Essays will be returned on application.

*Office of the Medical Recorder, 24 South Eighth Street.
Philadelphia, August, 1824.*

Medical Prize Question.

The Medical and Chirurgical Faculty of Maryland offer a premium of one hundred dollars in cash, or a Gold Medal, (at the option of the successful candidate) for the best Essay "on the Pathology and treatment of Cholera Infantum."

The undersigned have been appointed to award the premium at the next meeting of the faculty.—Candidates for the prize will cause their dissertations to be sent to either of them (*postage paid*) on or before the first day of May, 1825. Each dissertation to be accompanied by a sealed letter superscribed with a motto corresponding with that prefaced to the essay. None of the letters except that on which the motto of the successful essay shall be affixed will be opened; the remaining essays will be disposed of according to the direction of the owners.

NATHANIEL POTTER,
A. ALEXANDER,
THOMAS E. BOND,
EZRA GILLINGHAM,
PATRICK MACAULEY.

To extend as widely as possible the results of these praise-worthy undertakings, the assistance of this Journal is respectfully offered to all Medical Societies for the publication of their prize and other Essays. Farther to promote their views, the Proprietor will cheerfully furnish gratuitously a number of copies for the use of the members. From those societies who contemplate retaining their papers till a volume is accumulated this measure we hope will receive attention; particularly as the circulation of this Journal is very extensive, and as they will thus be enabled to save expense and lay before a large portion of the medical community in this country and in Europe their communications. The organization of Medical Societies is an object so consonant with the welfare and safety of our fellow men, that their establishment cannot be too highly commended, and promoted by every public-spirited and liberal minded citizen.

University of Maryland.

The Medical Lectures in the University of Maryland will commence on the last Monday in October next, and the Clinical Lectures on Medicine and Surgery on the cases of the patients in the Baltimore Infirmary, soon after.

Dr. Davidge on *Surgery*, Dr. Potter on the *Practice of Medicine*, Dr. Pattison on *Anatomy*, Dr. Baker on *Materia Medica*, Dr. M'Dowell on the *Institutes of Medicine*, Dr. Hall on *Midwifery*, Dr. De Butts on *Chemistry*.

University of Pennsylvania.

The Medical Lectures will commence as usual on the first Monday of November next.

Philip S. Physick, M.D. on *Anatomy*, J. R. Coxe, M.D. on *Materia Medica*, N. Chapman, M.D. on *the Theory and Practice of Physic*, W. Gibson, M.D. on *Surgery*, William E. Horner, M.D. *Adjunct Professor of Anatomy*, Thomas C. James, M.D. on *Midwifery*, Robert Hare, M.D. on *Chemistry*.

Clinical Lectures will be delivered in the Alms-House Infirmary by Drs. Gibson and Chapman.

University of the State of New-York.

The Lectures will commence on the first Monday of November next.

Dr. Hosack on *the Practice of Medicine*, Dr. Macneven on *Chemistry*, Dr. Post on *Anatomy and Physiology*, Dr. Mitchill on *Botany and Materia Medica*, Dr. Mott on *Surgery*, Dr. Francis on *Midwifery*, &c.

Vermont Academy of Medicine.

The lectures will commence at Castleton, on the first Thursday of September and continue fourteen weeks, under the following professors. William Tully, M.D. Professor of the Theory and Practice of Physic, and Medical Jurisprudence. Theodore Woodward, M.D. Professor of the Principles and Practice of Surgery and Obstetrics. William Anderson, M.D. Professor of Anatomy and Physiology. Amos Eaton, Esq. Professor of Chemistry and Natural Philosophy, and Lecturer on Mineralogy and Zoology. Jonathan A. Allen, M.D. Professor of Botany, Materia Medica, and Pharmacy.

Fees for all the courses, 40 dollars. Matriculation and library fee, 3 dollars. Graduation fee, 12 dollars.—Degrees conferred by the combined authorities of Middlebury College, and Vermont Academy of Medicine, in Castleton, at the close of the lecture term.

The Medical Society of South Carolina,

Have organized a School of Medicine. The Professors are :—

JOHN EDWARDS HOLBROOK, M.D.	Professor of <i>Anatomy</i> .
JAMES RAMSAY, M.D.	do. <i>Surgery</i> .
SAMUEL HENRY DICKSON, M.D.	do. <i>Institutes and Practice</i> .
THOMAS G. PRIOLEAU, M.D.	do. <i>Obstetrics and Diseases of Women and Infants</i> .
HENRY R. FROST, M.D.	do. <i>Materia Medica</i> .
EDMUND RAVENEL, M.D.	do. <i>Chemistry and Pharmacy</i> .
STEPHEN ELLIOTT, L.L.D.	do. <i>Natural History and Botany</i> .

A Matriculating Ticket to be paid for at the first Session.

In order to entitle an individual to examination for a degree it will be necessary that he shall have attained the age of twenty-one years, be of good moral character, and have studied medicine for two years with some established practitioner. He shall also have taken the ticket of each Professor for two courses of Lectures, or shall have attended one full course at some other respectable Medical School, previously to his becoming a member of this Institution. Students who have for two seasons taken the tickets of any or all of the Professors, shall be thereafter entitled to admission into his or their Lecture Room without farther expense.

The Lectures will commence on the second Monday in November next, and will continue for five months. The most ample means are provided for the study of anatomy; the library, belonging to the Medical Society, is open to the students; the chemical laboratory and apparatus are complete for the purposes of a full experimental course. Clinical lectures are also delivered, and operations performed in two hospitals.

New-Hampshire Medical School.

The Medical Institution of the state of New-Hampshire has been established at Hanover, in connection with Dartmouth College. The Medical College is a brick edifice three stories high, containing two large lecture halls, a chemical laboratory with a full apparatus and a large cabinet of minerals, an extensive and valuable museum of anatomy, a medical library of a few hundred volumes, which is annually increasing, and several rooms for students.

The annual course of Lectures commences two weeks after the College commencement, this year, (or Thursday, the 2d of September,) and continues fourteen weeks. Four lectures are delivered daily, and frequently five and even six, on the following branches, viz:—Anatomy, Surgery, and Obstetrics, by R. D. MUSSEY, M.D. Theory and Practice of Physic, Physiology, and Materia Medica, by D. OLIVER, M.D. Chemistry, Pharmacy, and Legal Medicine, by J. F. DANA, Esq.—Fees for all the courses 50 dollars. Boarding may be obtained for \$1 25. The students are closely questioned at every lecture on the subject of the preceding lecture; the class is examined every week by each professor on the subject treated of in the lectures of the preceding week.

An INFIRMARY has been commenced at Hanover by the medical Professors; boarding places have been engaged for patients who may need surgical operations, and for a small number labouring under chronic diseases. Surgical attendance is afforded *gratis*, and the medical class have the privilege of witnessing the operations.

The lectures in the Medical College of Ohio, will commence on Monday, the fifteenth of November next, and continue fifteen weeks. The course of instruction will be as follows, viz:—The Institutes and Practice of Medicine, by Jedediah Cobb, M.D. Chemistry and Pharmacy, by Elijah Slack, M.D. Materia Medica and Medical Obstetrics, by John Moorhead, M.D. Anatomy and Surgery, by Jesse Smith, M.D.

Drs. Cobb and Moorhead, and Professor Slack, will lecture at least five times a week, and Dr. Smith six. The price of the three former professors' tickets will be 12 dollars each, and of the latter, 15. The matriculation fee will be 5 dollars.

Candidates for the degree of Doctor of Medicine, will be required to have attended the lectures of three professors for two seasons, one in this institution; or have been four years respectable practitioners of medicine, in which case the attendants for one season only will be admitted. "The Commercial Hospital and Lunatic Asylum of Ohio," which is now finished, and the "Cincinnati College," will furnish the most convenient apartments for the accommodation of a medical class; and the number of patients in the former, good opportunities for clinical instruction. The local advantages of this place, with the laboratory and cabinet of the professors, will enable them to make their courses of instruction practical and demonstrative.

Books, instruments, medicines, &c. may be obtained in Cincinnati, on the most reasonable terms; and boarding from \$1 50 to \$2 50 per week.

An Infirmary for the Diseases of the Eye, has been established in Utica, New-York, under the particular care of Drs. Coventry and Douglass.

Medical School in Boston.

The Medical Lectures in Boston, will commence on the third Wednesday in November.

Anatomy and Surgery, by Dr. WARREN. Chemistry, by Dr. GORHAM. Midwifery and Medical Jurisprudence, by Dr. CHANNING. Materia Medica, by Dr. BIGELOW. Theory and Practice of Physic, by Dr. JACKSON.

Dr. Lobstein of this city, member of the Faculty of Medicine, and of the medical societies of Paris, Bordeaux, &c. is about to publish Observations on the Effects of Phosphorus, in the treatment of different diseases.

Medical Faculty of Berks County.

The practising physicians of this county, having associated and become a body politic in law, under the above style and title, met agreeably to public notice, on Saturday evening the 7th inst. at the public building of this borough, and duly organized their institution.

Doct. Isaac Hiester was called to the chair, and Doct. Charles Baum appointed secretary.

The charter and by-laws having been read, the following gentlemen were elected officers for the ensuing year.

Isaac Hiester, M.D. *President.*
 C. L. Schlemm, M.D. } *Vice-Presidents.*
 John B. Otto, M.D. }
 Charles Baum, M.D. *Recording Secretary.*
 Wm. J. C. Baum, M.D. } *Corresponding Secretaries.*
 Edward Haydock, M.D. }
 George Eckert, M.D. *Treasurer.*
 Dr. Bernard M'Neil, } *Curators.*
 Dr. Gerh. G. Bishop, }

Memoranda.

At the annual convention of the Medical and Chirurgical Faculty of Maryland, it was resolved that physicians be recommended to receive as students, those only whose classical attainments and correct deportment qualify them for the profession of medicine.—Also, That before being admitted as candidates for a degree, they should have read three years—attended two courses of lectures, and have read and studied certain books, which are particularly mentioned.

The author of the meteorological observations published in our last number, proposes to abridge them by noting their results.

He is thus enabled to add another daily observation at sunset, which is necessary each day, to show the duration of the heat of the afternoon, as in our climate a hot day is often succeeded by a cool evening, or perhaps by an evening nearly as warm as the day itself, which is a difference very important to be known in order to approach nearer the truth in describing the temperature of each month. This observation has been regularly made, but not before communicated.

Results of Meteorological Observations taken on the western side of the Delaware, in the Lat. 39° 37'.

1824. *March.*—Mean temperature at sunrise, - - - 34.6°
 do. at the warmest part of the afternoon, 46.1
 do. at sunset, - - - 41.4
 do. of the month, - - - 40.7

Highest on the 20th, 62°—Lowest on the 2nd, 23°.

Prevailing wind N. E.—Eight days are marked with rain, and three with snow, of which two inches have fallen.—General character, cold and wet.

April. Mean temperature at sunrise, - - - 45.2°
 do. in the afternoon, - - - 60.1
 do. at sunset, - - - 55.
 do. of the month, - - - 53.4

Highest 26th, 77°—Lowest 2nd, 31°.

Prevailing winds, between west and north.—Eight days rain; one day, the 11th, thunder.

<i>May.</i> Mean temperature at sunrise,	-	-	-	54.5°
do. in the afternoon,	-	-	-	70.
do. at sunset,	-	-	-	64.7
do. of the month,	-	-	-	63.1

Three days in this month rose the mercury to, or above 80°; highest 29th, 81°—Lowest 5th, 42°.—Prevailing winds, between north and west, and south and east.—Seven days rain; one day thunder.

<i>June.</i> Mean temperature at sunrise,	-	-	-	64.6°
do. in the afternoon,	-	-	-	79.1
do. at sunset,	-	-	-	74.
do. of the month,	-	-	-	72.6

Fourteen days at and above 80°; highest 6th, 89°—Lowest 15th, 52°.
Prevailing winds, between north and west.—Thirteen days rain, of which there fell 4.60 inches; nine days thunder.

<i>July.</i> Mean temperature at sunrise,	-	-	-	70.7°
do. in the afternoon,	-	-	-	83.8
do. at sunset,	-	-	-	79.5
do. of the month,	-	-	-	78.

Twenty-nine days at and above 80°; highest 9th and 10th, 90°—Lowest 16th, 58°.

Fourteen days rain, of which there fell 7.15; five days thunder.—General character, warm and wet.

<i>August.</i> Mean temperature at sunrise,	-	-	-	69.5°
do. in the afternoon,	-	-	-	79.3
do. at sunset,	-	-	-	76.1
do. of the month,	-	-	-	75.

Eighteen days at and above 80°; highest 19th, 87°—Lowest 5th, 60°.
Ten days rain, and 3.75 inches have fallen,—three days thunder.

Berkshire Medical Institution.—WILLIAMS' COLLEGE, (Mass.)

The annual course of medical lectures in this Institution, commences on the second Wednesday of September, and continues four months. Since the last session, the lecture rooms and anatomical theatre have been enlarged, and the apartments for students thoroughly repaired. The commons-house is a very superior building, in point of architectural beauty as well as conveniency, in which the trustees have made arrangements for boarding, washing, and lodging medical students, at the moderate price of \$1 75 per week, including rent.

The anatomical collection of wax models, belonging to the museum of the Institution, exhibiting most of the minute parts of the human body, are of great value. Arterial preparations, specimens of morbid anatomy, and the mineralogical cabinet, have been selected with great care, and are believed to be inferior to none in New England. The lectures upon anatomy are given every morning at 10 o'clock, throughout the whole term. Degrees are conferred on Thursday, following the close of the lectures, and at the annual commencement of Williams' College.

MEDICAL FACULTY.

JOHN P. BATCHELDER, M.D. Professor of General and Operative Surgery.

JEROME V. C. SMITH, M.D. Professor of General Anatomy and Physiology.

HENRY H. CHILDS, M.D. Professor of Theory and Practice of Physic.

JOHN DELAMATER, M.D. Professor of Obstetrics, Pharmacy, and Materia Medica.

CHESTER DEWEY, A.M. A.A.S. Professor of Chemistry, Botany, Mineralogy, and Natural Philosophy.

STEPHEN W. WILLIAMS, M.D. Professor of Medical Jurisprudence.

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